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THE
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Journal of Education.

EDITED BY

HENRY BARNARD, LL.D.

VOLUME I.

HARTFORD, F. C. BROWNELL.
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Preface.

The plan of a series of publications, embracing a periodical to be issued monthly or quarterly, devoted exclusively to the History, Discussion, and Statistics of Systems, Institutions, and Methods of Education, in different countries, with special reference to the condition and wants of our own, was formed by the undersigned in 1842, on the discontinuance of the first series of the Connecticut Common School Journal, commenced by him in August, 1838. In pursuance of this plan, several tracts and treatises on distinct topics connected with the organization, administration, and instruction of schools of different grades, and especially of public elementary schools, were prepared and published, and the material for others was collected by travel, correspondence, purchase, and exchange.

The further prosecution of the work was suspended in consequence of his accepting the office of Commissioner of Public Schools in Rhode Island, but was resumed in 1849, on his resigning the same. In 1850 the plan was brought without success before the American Institute of Instruction, at its annual meeting at Northampton, in connection with an agency for the promotion of education in New England. Having been induced to accept the office of Superintendent of Common Schools in Connecticut, for the purpose of reëstablishing the educational policy which had been overthrown in 1842, the undersigned undertook to carry out his plan of publication by preparing a series of reports and documents, each devoted to one important subject, under authority of the Legislature. In this connection "Practical Illustrations of the Principles of School Architecture," "Normal Schools, and other Institutions, and Agencies for the Professional Training and Improvement of Teachers," and "National Education in Europe," were prepared and published. Finding that the anxieties and labors of office, combined with that general correspondence, and special research and reflection which the completion of the series required, were too much for his health, he resigned his office, and addressed himself to the execution of the latter. Failing to enlist either the Smithsonian Institution, or the American Association for the Advancement of Education, in the establishment of a Central Agency, the undersigned undertook, in March, 1855, on his own responsibility, the publication of a Journal and Library of Education. Arrangements were accordingly made in April, to print the first number of the American Journal of Education, in connection with the publication of the proceedings of the Association for 1854, to be issued on or before the first of August, 1855.

After much of the copy of Number One was in type, a conference was held with the Rev. Absalom Peters, D. D., who contemplated the publication of a periodical under the title of the American College Review, and Educational Magazine or Journal. This conference led to the combination of the two periodicals, and a joint editorship of the American Journal of Education and College Review. The first number was published in type, style and matter as prepared by the undersigned, with the adoption of the Prospectus already prepared by Dr. Peters for his magazine, modified, so as to merge the prominent feature of the College Review in the more comprehensive title of the American Journal of Education.

In the preparation of the second number, it became evident that two could not walk, or work together, unless they be agreed, and by mutual arrangement, and for mutual convenience, it was determined after the issue of that number, to discontinue the joint publication, leaving each party " the privilege of publishing an Educational Magazine, for which he was entitled to use the first and second number of the American Journal of Education and College Review, as number one and two of his work."

In the spirit and letter of this arrangement, as understood by him, the undersigned resumed the title and plan of his own Journal, and has completed the first volume by the publication of a number for March and for May, with this variation only, that he has given his subscribers more than he originally promised, and in the further prosecution of his work, shall include in the Journal much that he intended for chapters in some of the treatises which were to compose the Library of Education.

Should the Journal be sustained by a liberal subscription list, and should the health of the present editor admit of the requisite labor, it will be continued for a period of five years, or until the issue of ten volumes, conducted substantially on the plan of Volume I.

The editor will studiously avoid the insertion of all topics, or papers foreign to the great subject to which it is devoted, or of a single line or word calculated to injure intentionally the feelings of any faithful laborer in any allotment of the great field of American Education.

HENRY BARNARD.

HARTFORD, CONN.,
MAY 1, 1856.

CONTENTS.

NO. 1, FOR AUGUST, 1855.

PAGE.
Editorial Introduction 1

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION.

Original call for National Convention in 1849 3
Proceedings of First and Second Session 4
Constitution of American Association 4
Proceedings of Session for 1851 6
Proceedings of Session for 1852 6
Proceedings of Session for 1853 7
Proceedings of Session for 1854 8
Journal of Proceedings of Fourth Annual Meeting, held in Washington, on the 27th, 28th, 29th and 30th of December, 1854. By R. L. Cooke, Secretary 9
I. PHILOSOPHY OF EDUCATION. By Joseph Henry, LL. D. 17
Remarks on the same, by Bishop Potter, Prof. Bache. Dr. Proudfit, and others 32
II. THE ANGLO-SAXON ELEMENT IN THE ENGLISH LANGUAGE. By John S. Hart, LL. D. 33
Remarks on the same, by Bishop Potter, Prof. Dimitry, Dr. Proudfit, Rev. S. Hamill, Prof. Bache, Dr. Stanton, Prof. Henry, and others 60
III. CLASSICAL EDUCATION. By David Cole, Trenton, New Jersey 67
Remarks on the same by A. Greenleaf, Bishop Potter, Z. Richards, Dr Proudfit 83
IV. DESCRIPTION OF PUBLIC HIGH SCHOOL HOUSE IN PHILADELPHIA. By John S. Hart, LL. D. 96
Remarks on the same by Prof. Bache, Dr. Proudfit, Mr. Barnard, and others 100
Plans. *Fig.* 1, *Perspective.* *Fig.* 2 *Basement.* *Fig.* 3, *First Floor.* *Fig.* 4, *Second and Third Floors.* *Fig.* 5, *Chilson's Furnace.*
V. PRACTICAL SCIENCE. An Account of a Visit to the Office of the Coast Survey 103
VI. DISCIPLINE, MORAL AND MENTAL. By Z. Richards, Washington 107
VII. EDUCATION AMONG THE CHEROKEE INDIANS. By William P. Ross 120
VIII. SCHOOL GOVERNMENT. By Rev. Samuel Hamill, Lawrenceville, New Jersey 123
IX. PLAN OF CENTRAL AGENCY FOR THE ADVANCEMENT OF EDUCATION IN THE UNITED STATES. By Henry Barnard, Hartford, Ct. 134
Plan of Agency 135
Plan of Publication. 1 Journal. 2 Library 135
Titles of Treatises in proposed Library of Education 136
Outline of Treatise on National Education in United States 126

NO. 2, FOR JANUARY, 1856.

Portrait of Abbott Lawrence.
I. EDITORIAL INTRODUCTION 137
II. UNCONSCIOUS TUITION. By Prof. F. D. Huntington, D. D., of Harvard College 141
III. THE DEMOCRATIC TENDENCIES OF SCIENCE. By Prof. D. Olmsted, of Yale College 164
IV. IMPROVEMENTS PRACTICABLE IN AMERICAN COLLEGES By Prof. F. A. P. Barnard 172
V. POPULAR EDUCATION IN UPPER CANADA. By George Hodgins, of Toronto 184
VI. BENEFACTORS OF EDUCATION, LITERATURE AND SCIENCE 206
TABLE. Amount of Lands appropriated by Congress to Educational purposes 204
VII. ABBOTT LAWRENCE 205
VIII. THE LAWRENCE SCIENTIFIC SCHOOL, with an Illustration 216
View of Lawrence Scientific School 216
IX. AMERICAN COLLEGES; History of Illinois College 225
X. RICHMOND FEMALE INSTITUTE, with Illustrations 231
Plans. *Fig.* 1, *Perspective.* *Fig.* 2, *Basement Story.* *Fig.* 3, *First Floor.* *Fig.* 4, *Second and Third Story.*
XI. EDUCATIONAL INTELLIGENCE 234
Annual Meeting of American Institute of Instruction 234
Annual Meeting of American Association 234
Annual Meeting of Western College Society 235

NO. 3, FOR MARCH, 1856.

PAGE.

Portrait of George Peabody, Founder of Peabody Institute, Danvers, Mass.

I. EDUCATION,—A DEBT DUE FROM PRESENT TO FUTURE GENERATIONS; illustrated in the endowment of the Peabody Institute. 237

II. EDUCATION AMONG THE HEBREWS. By Rev. Morris Raphall, Ph. D., New York. 243

III. PROGRESS OF EDUCATIONAL DEVELOPMENT IN EUROPE. By Henry P. Tappan, D. D. 247

IV. IMPROVEMENTS PRACTICABLE IN AMERICAN COLLEGES. By F. A. P. Barnard, LL. D. 269

V. METHOD OF TEACHING LATIN AND GREEK. By Tayler Lewis, LL. D. 281

VI. EDUCATIONAL BIOGRAPHY. 295

VII. BIOGRAPHY OF EZEKIEL CHEEVER, the Patriarch of New England School Masters—with Notes on the early Free Schools and Text Books of New England. 297

VIII. SCIENTIFIC SCHOOLS IN EUROPE, considered in reference to their prevalence, utility, scope, and adaptation to America, by Daniel C. Gilman, A. M. 315

IX. PLAN OF AN AGRICULTURAL SCHOOL. By John A. Porter, M. D., Prof. of Agricultural Chemistry in the Yale Scientific School. 329

X. MORAL EDUCATION. By Rev. Charles Brooks, of Medford, Mass. 336

XI. CRIMES OF CHILDREN AND THEIR PREVENTION. 345

XII. SYSTEM OF PUBLIC SCHOOLS IN ST. LOUIS, Missouri; with Plans and Description of the Public High School. *Fig.* 1, *Perspective.* *Fig.* 2, *First Floor.* *Fig.* 3, *Second Floor.* *Fig.* 4, *Third Floor.* *Fig.* 5, *Fourth Floor.* 348

XIII. LETTERS TO A YOUNG TEACHER. By Gideon F. Thayer, Boston. 357

XIV. DEPARTMENT OF PHILOSOPHY AND THE ARTS IN YALE COLLEGE. 359

XV. MAGNITUDE OF THE EDUCATIONAL INTEREST OF THE UNITED STATES; as shown by Statistical Tables and Summaries of the Population, Educational Funds, &c. 361

TABLE 1. Population and Area of the American States.

TABLE 2. Population of each of the United States in 1790, 1800, 1810, 1820, 1830, 1840 and 1850. Juvenile Population in each State between ages of 5 and 10, of 10 and 15, and of 15 and 20. Area of each State.

TABLE 3. Number of Colleges—their teachers, pupils, and income. Academies—their teachers, pupils, and income. Public Schools—their teachers, pupils and income. Persons returned as at School. Persons over 20 years of age who can not read and write. Persons native born who can not read and write.

TABLE 4. No. of Libraries and volumes in each State. No. of State Libraries. No. of Social Libraries No. of College Libraries. No. of Academies. No. of Historical and Scientific Schools. No. of Public School Libraries. No. of Church Libraries. No. of Sunday School Libraries. Total of Libraries and vols.

TABLE 5. No. of Libraries in different States, Capitals and Universities of Europe.

TABLE 6. School Funds and Institutions of Education supported by public funds.

XVI. EDUCATIONAL MOVEMENTS AND STATISTICS. 385

RUSSIA. 1. Universities. 2. Schools for Scientific Education. 3. Military Schools.

BELGIUM. Industrial Education.

GREAT BRITAIN. 1. Appropriations by Parliament for Education, Science and Art in 1855-56. 2. Distribution of Parliamentary Grant by Department of Science and Art in Board of Trade. 3. Proposed University for Legal Education. 4. Working Men's College in London. 5. Midland Literary and Scientific Institute at Birmingham—with Remarks by His Royal Highness Prince Albert, on laying the Corner Stone. 6. Distribution of Parliamentary Grant by Board of Commissioners of National Education in Ireland. 7. Inquiry into Educational Endowments in Ireland. 8. Salaries of Professors in Universities of Scotland. 9. Dick's Bequest in behalf of Parochial School-Masters. 10. Lord Elgin's Speech at Glasgow, holding up the Canada System of Public Schools to Scotland for imitation.

FRANCE. 1. Opinions of American Education. 2. Boarding School for Girls, at Paris

HOLLAND. 1. Universities,—Leyden, Utrecht, and Groningen. 2. Public Schools.

GERMANY. Universities of Prussia, Saxony, and Austria.

AMERICAN STATES. 1. Colleges in New England in 1855-6. 2. Notices of deferred Articles. 3. Plans of new Public School for Girls in New York. *Fig.* 1, *Front View.* *Fig.* 2, *Basement.* *Fig.* 3, *First Floor.* *Fig.* 4, *Second and Third Floor.*

XVII. EDUCATIONAL JOURNALS. 1. German. 2. French. 3. English. 4. American. . . 413

XVIII. BOOKS AND PAMPHLETS RELATING TO SCHOOLS AND EDUCATION. 415

NO. 4, FOR MAY, 1856.

Page.

Portrait of Thomas Hopkins Gallaudet....................417
Portrait of Thomas Handasyd Perkins....................551
Portrait of Charles Brooks....................586
I. Educational Biography—Thomas Hopkins Gallaudet....................417
II. Testimonial and Monument to Thomas Hopkins Gallaudet....................433
American Asylum for the Education of the Deaf and Dumb....................441
Plan of the Building. *Fig.* 1, *Perspective.* *Fig.* 2, *First Floor.* *Fig.* 3, *Second Floor*..442
III. Magnitude of the Educational Interest in United States....................445
Table 6. School Funds and Statistics of Public Schools, Normal Schools, Reform Schools, Institutions for Deaf Mutes, Bliud, and Idiots, &c. Continued from No. 3. 447
Table 7. Statistics and extracts from Official Reports of the Public Schools of the Cities of Boston, Philadelphia and Providence....................458
Table 8. Population of the principal Cities and Towns....................440
Table 9. No. of Deaf Mutes, Blind, Idiotic and Insane....................650
Table 10. Newspapers and other Periodicals in 1850....................651
IV. Consolidation and other Modifications of American Colleges....................471
An Address at the Opening of Jefferson and Marshall Colleges, by Rt. Rev. A. Potter.
V. National University. Remarks before American Association, by A. D. Bache, LL. D.449
VI. Method of Teaching Latin, and Greek. By Tayler Lewis, LL. D., Union College...480
VII. Debating—a Means of Educational Discipline. By J. N. McElligott, LL. D., N. Y..495
VIII. Physical Science. By H. J. Anderson, LL. D., New York....................515
IX. Subjects and Methods of Elementary Instruction in Mathematics. Translated from a Report by Le Verrier—of a Commission on the Polytechnic School of France. By Prof. W. M. Gillespie, of Union College....................533
X. Benefactors of Education, Literature and Science. Thomas Handasyd Perkins...551
XI. Letters to a Young Teacher. Number 2. By Gideon F. Thayer....................561
XII. Mental Education of Woman. By Catharine McKeen, Mt. Holyoke Female Seminary.567
XIII. Packer Collegiate Institute for Girls, in Brooklyn, N. Y....................578
Plan of the Buildings. *Fig.* 1, *Front View.* *Fig.* 2, *Garden View.* *Fig.* 3, *Section of Hall.* *Fig.* 4, *Chapel.* *Fig.* 5, *Basement.* *Fig.* 6, *First Floor.* *Fig.* 7, *Second Floor.* *Fig.* 8, *Third Floor.* *Fig.* 9, *Fourth Floor.* *Fig.* 10, *Fifth Floor.*
XIV. Chapter from the History of Normal Schools in Massachusetts....................587
Labors of Rev. Charles Brooks. Plymouth County Association in 1839—Remarks by Rev. Dr. Putnam, John Quincy Adams and Daniel Webster....................589
XV. Idiots and Institutions for their Training. By L. P. Brockett, M. D., Hartford, Ct.591
XVI. Family Training and Field Labor in Reformatory Education....................609
Account of the Agricultural Colonies of France, particularly of Mettray....................611
XVII. Educational Statistics and Miscellany....................625
1. Bavaria. Abstract of Educational Census of 1851....................625
2. France. Professional Education of Military Officers....................626
3. Greece. Educational Statistics of 1854....................628
4. Great Britain. Ashburton Prizes for Teaching Common Things....................629
Female Adult Education in Evening School at Belfast....................634
Normal Lace School in Dublin....................635
Queen's Industrial School at Windsor....................636
Educational Test of Competitive Examination for Public Office....................637
Lord J. Russell's Scheme of National Education....................638
Statistics of Education in New South Wales....................640
5. American States. Prof. Dana's Introductory Lecture....................641
Edward Everett and the Public Schools of Boston....................643
School-houses converted into Monuments of distinguished men....................645
Dedication of Winthrop School-house, in Boston—Remarks by R. C. Winthrop..645
" Eaton School-house, in New Haven—Remarks by President Woolsey.646
Astor Library in New York....................648
Library for Factory Operatives in Lawrence, Mass....................649
Cooper Scientific Union, New York....................650
XVIII. Obituary. T. Romeyn Beck. Zadoc F. Thompson. Joseph Curtis. Joseph McKeen. Nicholas Tillinghast. Robert Kelly....................654
XIX. Educational Journals, for March and April....................656

SUPPLEMENTARY NUMBER—TO VOLUME I.

PAGE
Title Page to Volume I..........i
Preface to Volume I..........iii
Contents of No. 1, 2, 3, 4..........v
Index to Volume I..........ix
Circular of Publisher..........657
Testimonial to Henry Barnard, by the Teachers of Connecticut,..........659
Portrait of..........659
Biographical Sketch..........663
Educational Labors in Connecticut..........669
Author of State System of Supervision of Common Schools..........668
Member and Secretary of Board of Education..........669
Address to People of Connecticut..........670
Annual Report on Condition of Common Schools,..........674
Abolition of the Board..........678
Letter of Mr. Barnard as to expenses of the Board..........679
Mode of ascertaining condition of the schools..........686
" disseminating information..........697
" improving school-houses..........700
" " qualifications of teachers..........699
" " schools in cities..........701
" " " manufacturing districts..........704
" exciting public and parental interest..........706
Schedule of Inquiries respecting a School..........686
Topics for Discussion in public meetings..........709
Connecticut Common School Journal..........711
Improvement in legislation respecting schools..........712
Results of labors from 1838 to 1842..........717
Plan of Voluntary Association for the Improvement of Common Schools..........721
Educational Labors in Rhode Island from 1843 to 1849..........723
Peculiar difficulties..........724
Testimony of Mr. Kingsbury, and Dr. Wayland, as to success..........726
Results of his labors..........728
Testimonial by Legislature..........733
" Teachers of Rhode Island..........734
Letter to the Teachers..........734
Appointment as Superintendent of Common Schools in Connecticut..........736
Address of Dr. Bushnell..........737
Reports and Documents on Schools and School Systems..........739
School Architecture—contents of..........740
Reports on Common Schools of Connecticut..........754
Connecticut Common School Journal..........753
Legal Provision respecting the Education and Employment of Factory Children..........753
Report on History and Improvement of Public Schools in Rhode Island..........755
Journal of Rhode Island Institute of Instruction..........755
Normal Schools, or Professional Education of Teachers..........753
Tribute to Gallaudet, with History of Institutions for the Deaf and Dumb..........759
Ezekiel Cheever and the early Free Schools of New England..........769
History of Education in Connecticut..........761
National Education in Europe..........745
National Education in the United States..........764
Library of Education..........763
Manual for Teachers..........765
The Crimes of Children; with an Account of Institutions and Agencies designed for their prevention and reformation in different countries..........766
Gradation of Schools;—or the Organization, Administration, and Instruction of Public Schools in Cities and large villages..........768
Schools of Applied Science,—or Institutions and Courses of Instruction designed for persons engaged in Agriculture, Engineering, Achitecture, and other Industrial Pursuits..........767
Books on Education, Teaching, Schools, and School Systems..........769
F. C. Brownell—Public School Apparatus..........776

INDEX TO VOLUME I.

OF

BARNARD'S AMERICAN JOURNAL OF EDUCATION.

Abbott's, J., Teacher, contents of the, 769.
on Bible and prayer in schools, 344.
Abendberg, school for idiots at, 595.
Academies in the United States in 1850, 368.
" number, teachers, pupils and income, 368.
Adams, John Quincy, on normal schools, 589.
Adult education for females in Ireland, 634.
Agricultural colonies in France, 611.
Agricultural school, plan of, by J. A. Porter, 329.
Agricultural schools, in Germany, 328.
Agnew, Prof., on Woman's offices and influence, 6.
Alabama, extent and population of, 366.
Juvenile population, 5 to 10; 10 to 15; 15 to 20 years, 368.
Colleges in 1850, pupils, teachers & income, 368.
Academies " " " " 368.
Public schools " " " 368.
Libraries, state, college, and school, 369.
Whites in coll., acad., and public schools, 368.
" who can not read or write, 368.
" native born do., 368.
Educational funds in 1854, 371.
Common school funds, 371.
Asylum for deaf and dumb, 371.
Statistics of the deaf-mute, blind, insane, 650.
Newspaper and other periodicals in 1850, 651.
Albert, Prince, remarks on science and art, 388.
Alcott, W. A., on condition of school-houses, 423.
" confessions of a school-master, 771.
" slate and blackboard exercises, 770.
American Association for Advanc. of Education, 3.
" " history of, 3.
" " constitution of, 4.
" " first session of in 1851, 6.
" " second " " 1852, 6.
" " third " " 1853, 7.
" " fourth " " 1854, 8.
" " fifth session of, 1855, 8, 234.
American Asylum for deaf and dumb, 421.
" " plans and description of, 441.
American Institute of Instruction, in 1855, 234.
" " " lectures before,
American Journal of Education, plan of, 111, 134.
" " union of with College Review, 2.
" " independent publication of, 111.
Amherst College, statistics of, 405.
Anderson, H. J., on physical science, 515.
Anglo-Saxon language, 33.
" " introduction of study of, 55.
" " importance of studying, 57.
Apparatus, for agricultural schools, 331.
" for common schools, 785.
Architecture applied to schools, 787.
" schools of, 328, 626.
Archives of American Association, 5.
Arctic lands and islands, ext. in sq. miles, 365.
Area in square miles of the American States, 365.
" " " United States, 367.
Arithmetic, method of teaching, 534.
" defective and vicious methods,
" programme for teaching, 539.
" division of whole numbers, 536.
" decimal numbers, 536.
" extraction of square root 537.
" problems should relate to real objects, 538.
Arkansas, territory and population, 367.
Whites, slaves, colored, 367.
Whites 5 and under 10, 367.
" 10 " 15, 367.
" 15 " 20, 367.
Colleges, teachers, pupils, income of, 368.
Academies in 1850, 368.
" teachers, pupils, income, 368.
Public Schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, social, Sunday & common school, 369.
Educational funds in 1854, 371.
Common school system, 371.
Arts, central school of, in Paris, 322.
" schools of, in France, 314.
" " " in Belgium, 316.
" " " in Russia, 317.
" " " in England, 318.
" " " in Germany, 328.
Ashburton, Lord, prize scheme for teaching common things, 629.
" " address to teachers, 629.
Astor, John Jacob, bequest of, 204, 648.
Astor Library, N. Y., 7th annual report of, 648.
Atheneum in Boston, Mass., 560.
" in Columbia, S. C., 652.
" in Holland, 400.
Attendance in public schools of Boston, 458.
" " " how secured, 460.
" " " Providence, 468.
" " " high school of Phila., 467.
Austrian Universities, 403.
" " location of, 403.
" " when founded, 403.
" " number of professors, 403.
" " " " students, 403.
" " seminaries of theology, 403.
Austria, libraries in, 370.

Bache, A. D., on Prof. Hart's lecture, 63, 100.
" " " on National Free University, 477.
Baldwin, Rev. Theron, 227.
Barnard, C. F., on model lodging-houses, 212.
Barnard, Henry, on Prof. Hart's lecture, 64, 102.
" plan of central agency, 134.
" " Am. Jour. of education, 134.
" " library of Education, 135.
" tribute to Gallaudet, 417

Barnard, Henry, tribute to, by teachers of Ct., 659.
“ articles by, 1, 202, 205, 216, 231, 237, 295, 297, 348, 361, 417, 433, 445, 551, 578, 609, 654.
“ portrait of, 659.
“ biographical sketch of, 663.
“ extract from speech of, 661, 668.
“ author Board of Education in Conn., 667.
“ appointed as secretary. 669.
“ address to people of Conn. in 1838, 670.
“ plan of operation as secretary, 673.
“ abolition of board and sec'y in 1842, 677.
“ examination of charges as to expenses, 678.
“ letter to committee on, 679.
“ mode of ascertaining condition, 686.
“ mode of disseminating information, 697.
“ “ improving teachers, 699.
“ “ “ school-houses, 700.
“ “ “ city schools, 701.
“ “ “ factory children, 704.
“ “ exciting public interest, 706.
“ schedule of inquiries by, 686.
“ Conn. Common School Journal, 700.
“ topics for teachers' meetings, 709.
“ plan of voluntary association, 721.
“ labors in Rhode Island, 723.
“ testimonial by teachers of R. I., 735.
“ letter to teachers of R. I., 735.
“ return to Connecticut in 1850, 736.
“ labors in, 737.
“ list of publications by, 739.
“ contents of School Architecture, 740.
“ “ and index of Educ. in Europe, 746.
“ “ of rep. of com. schools of Conn., 754.
“ “ “ of pub. schools of R. I., 755.
“ “ Jour. of R. I. Inst. of Instruc., 755.
“ tribute to Gallaudet, 758.
“ history of Education in Connecticut, 761
“ plan of Manual for teachers, 765.
“ “ Library of Education, 563.
“ “ National Education in U. States, 764.
Barnard, Rev. John, autobiography, 307.
Barnard, F. A. P., on American Colleges, 174, 269.
Barre, school for Idiots at, 603.
Basle, university of, 404.
Bates, Joshua, of London, 204.
Bates, W., paper by, at Cleveland, 6.
Bavaria, Educational statistics of, 1851–2, 526.
Academy of sciences, 626.
Scientific collections, 626.
Public libraries, 626.
Academy of paintings, 626.
Conservatism of music, 526.
Universitives, 626.
Lycea, 626.
Gymnasia and Latin schools, 626.
Special schools, 626.
Common schools, 627.
Industrial schools, 627.
Drawing schools, 627.
Infant schools, 627.
Convent and private schools, 627.
Beck, T. Romeyn, obituary, 654.
Belgium industrial school, 384.
“ “ apprentice work-shop for boys, 384
“ “ “ “ for girls, 384.
Ateliers d' apprentisage, in East Flanders, 384
Ecoles d' apprentisage for girls, 384.
Berlin trade institute, 322.
Berlin University, 402, 404.
Bermuda Islands, extent in square miles, 366.
“ “ population in 1850, 365.
Berne, university of, 404.
Bible and prayer in schools, 344.
Bingham, Caleb, 204.
Biographical sketch, and notices.
Abbott Lawrence, 205.
Ezekiel Cheever, 297.
Thomas H. Gallaudet, 417.
Thomas H. Perkins, 551.
Charles Brooks, 587.
T. Romeyn Beck, 655.
Joseph Curtis, 654.
Joseph McKeen, 654.
Robert Kelly, 655.
Zadoc Thompson, 655.
Nicholas Tillinghast, 655.
George Peabody, 237.
Henry Barnard, 657.
Birmingham, scientific school at, 388
Bishop, N., experience as superintendent, 458.
“ on school attendance, 458.
“ on truancy, 461.
“ on separation of sexes in school, 461.
Blind, number of in the U. S., in 1850, 650.
Blind, institution for in Massachusetts, [illegible]
“ “ Iowa, 379.
“ “ Illinois, 375.
“ “ Indiana, 377.
“ “ Kentucky, 377.
“ “ Louisiana, 377.
“ “ Michigan, 447.
“ “ Mississippi, 447.
“ “ Missouri, 448.
“ “ New York, 450.
“ “ North Carolina, 451,
“ “ Ohio, 452.
“ “ Pennsylvania, 453.
“ “ Tennessee, 455.
Bolivia, extent and population of, 365.
Bologna University, 254.
Bonn, university of, 402, 404.
Books on theory and practice of education.
Boston, public schools in, 458
Population in 1855, 458.
Number of pupils in public schools, 458.
“ “ private “ 459.
Evening schools, 460.
Truant children and absentees from school, 460.
Truant officers, 460.
Primary schools, pupils in, 461.
Grammar schools, pupils in, 461.
High schools, pupils in, 461.
Cost of school-houses, 461, 645.
Education of boys and girls together, 461.
Bowdoin College, statistics of, 405.
Brazil, territory and population, 365.
Breslau, university of, 404.
Brinsley, John, Latin accidence, 311.
British America, extent and population, 365.
British Honduras, extent and population, 365.
Brockett, L. P., on idiots and their training, 593.
Brooks, Charles, educational labors of, 587.
“ portrait of, 587.
“ on morals in schools, 336.
Brown, Dr., school for idiots, at Barre, 603.
Brown University, statistics of, 405.
Burlington, university of Vermont, at, 405.
California, extent and population in 1850, 367.
Whites, free colored, slaves, 367.
Whites, 5, under 10, 367.
“ 10, under 15, 367.
“ 15, under 20, 367.
Academies, teachers, pupils, income, 367.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368
“ over 20 who can not read or write, 368.
Educational Funds, 372.
Common school system in 1854, 372.
Colleges in 1855, 372.
Canada, Upper, 186.
System of public education, 186
History of, 186.
Land appropriations, 187.
Classical and mathematical schools, 188
Grammar school, 188.
School laws, 188.
Board of education, 189.
Public libraries, 189, 195.
System of education, 1836, 190.
Act of legislature, 1839, 190, 194.
Present state of education, 191.
School organization, 192.
Number of schools, 192, 199.

  Council of public instruction, 192.
  Voluntary character of system, 194.
  Text-books, 195.
  Maps, charts, &c.
  Grant of legislature for library, 106.
  Remarks of Lord Elgin, 197.
  Age of teachers, 197.
  Extent and population, 365.
Calisthenics, treatise on,
Carlsruhe, polytechnic school of, 322.
Cathedral and conventual schools, 299, 254.
Central Agency to promote education, 134.
Central America, extent and population, 365.
Central School of Arts in Paris, 323.
Central High School of Philadelphia, 93, 467.
Charlemagne, cathedral and conven'l schools, 254.
Cheever, Ezekiel, biography of, 297.
  " labors in New Haven, Conn., 297.
  " " Ipswich, Mass., 303.
  " " Charlestown, Mass., 304.
  " " Boston, Mass., 304
  " agricultural operations, 303.
  " motion presented to selectmen, 304.
  " Latin school of Boston, 304.
  " school-house, 306.
  " internal economy of school, 307.
  " discipline of school, 309.
  " text-books, 310.
  " "The Accidence," 310.
  " method of teaching latin, 310.
  " essays on millennium, 312.
  " death, &c., 313, 314.
Chemistry, in Lawrence scientific school, 221.
  " applied to the arts, 359.
  " agricultural, 359.
Cherokee Indians, public education, 120.
  " " mode of teaching English language among, 121.
Chili and West Patagonia, extent and pop., 365.
Choate, Rufus, address at dedication of Peabody Institute, 239.
City schools, gradation of,
Cities in U. S., population of in 1840 & 1850, 476.
Civil engineering, 182.
Classical education, 67, 86.
  " language, study of, 176.
Clement of Ireland, 254.
Cleveland, American Association at, in 1851, 6.
Clerc, Laurent, testimonial to, 422, 433.
Cole, David, classical education, 67.
College Society, 335.
Colleges, improvements practicable in, 174, 269.
  Stimulants to incite to effort, 270.
  Grade of honor, 271, 273, 275.
  Prizes in form of books, &c., 272.
  Manner of awarding distinctions, 272
  Foundation of scholarships, 273, 274.
  Industry in encouraged, 274.
  Degradation and promotion, 275.
  Increase of number of instructors, 275.
  Object of University examination, 276.
  Classification, 277.
  Academic degrees, 277.
  Open university plan, 278.
  Degree of Bachelor of Arts, 278.
  English Universities, 278.
  Government in colleges, 279.
  Difficulties of government in, 279.
  Treatment of offences, 279.
  Keeping record of demerit, 280.
  Penal legislation, 280.
  Perpetrators of secret offences, 280.
  Colleges of present day, 281.
  Dormitories of, 281.
  Relations to each other, 282.
  Council of delegates, 283.
  Correspondence between, 284.
  American, 171, 225, 368.
  Remarks on consolidation of, 471.
  Upper Canada, 199.
  Democratic tendency, 164.
  Poor students, 171, 172.
  Distribution of honors, 172.
  Arrangement of, 176.
  Denominational, 176.
  American system, 177.
  Course of instruction, 178, 181, 183.
  Age of admission, 185.
  Requirement for admission, 184.
Colleges and Universities, outcry against, 164.
Commerce, study of, 322.
Common things, teaching of, 629.
Composition, extempore exercises in, 467.
Compulsory school attendance,
Connecticut, extent and population, 367.
  Whites, colored, 367.
  Whites 5 to 10, 10 to 15, 15 to 20, 367.
  Colleges in 1850, teachers, pupils, income, 368.
  Academies, teachers, pupils, income, 368.
  Public schools, teachers, pupils, inc., 368, 372
  Whites in coll., acad., and pub. schools, 368
    " over 20 who can not read or write, 368
    " native born do., 368.
  Libraries, state, college, school, &c., 369.
  School fund, 372.
  Common school system, 373.
  Teachers' institutes, 373.
  Normal schools, 373.
  State reform school, 373.
  The blind, 373.
  The deaf and dumb, 373.
  American Asylum, 373.
  Mr. Barnard's labors in, 669.
Cooke, R. S., on Prof. Hart's account of High School, 102.
  " Journal of 4th session of Assoc., 9.
Cooper, Peter, 204, 652.
Cooper Scientific Union, 652.
  " " " engraving of, 551.
Coote, author of the English schoolmaster, 301
Corne, M., report on juvenile crime, 613, 617.
Corporal punishment in school, 112, 130.
  " " in family, 112.
  " " object of, 108.
Correction, paternelle, in the French code, 621.
Costa Rica, extent and population in 1850, 265.
Courteilles, Vicomte, at Mettray, 618.
Cousin, extract from,
Crimes of children, extent, causes and cure, 345.
Cracow, university of, 403.
Curriculum, necessity of 180.
Curtis, Joseph, 655.

Dana, Prof., inaugural discourse, on geology, 641
Danvers, Peabody institute at, 239.
Dartmouth College, statistics of, 405.
Davenport, Rev. John, 298.
Davis, Rev. Gustavus, 427.
Dawes, R., Dean of Hereford, suggestive hints.
Deaf and dumb, statistics of, in U. S., in 1850, 650
  " " institutions for 1855, 444.
  " " cost of buildings & grounds, 444.
  " " date of opening, 444.
  " " number of teachers & pupils, 444.
  " " name of principals, 444.
  " " annual expenses, 444.
  " " " receipts, 444.
Deaf & dumb, institutions for in Conn., 444, 373.
  " " in New York, 444, 450.
  " " Pennsylvania, 441, 454
  " " Virginia, 444, 457.
  " " North Carolina, 444, 451.
  " " South Carolina, 444, 455.
  " " Georgia, 444, 374.
  " " Alabama, 444, 371.
  " " Louisiana, 444, 377.
  " " Mississippi, 444.
  " " Tennessee, 444, 455.
  " " Kentucky, 444, 377.
  " " Missouri, 444,
  " " Iowa, 444, 375.
  " " Illinois, 444, 375.
  " " Indiana, 444, 376.
  " " Michigan, 444.

Deaf and dumb, institution for, in Ohio, 444, 452.
  " " in Wisconsin, 457.
Debating, essay by Dr. McElligott on, 495.
DeBows comp. 7th census, tables from, 202, 366.
Decimals, how taught, 536.
DELAWARE, extent and population, 367.
  Whites 5 to 10, 10 to 15, 15 to 20, 367.
  Colleges, teachers, pupils, income, 368.
  Academies, teachers, pupils, income, 268.
  Whites in coll., acad., and pub. schools, 368.
  Libraries, state, college, social, &c., 369.
  Public schools, teachers, pupils, income, 368.
  Whites, over 20 who can not read or write, 368.
    " native born, do., 368.
  Free schools, 373.
  Deafmutes and blind, 274.
  Educational funds, 374.
Demetz, report on agricultural colonies, 611.
  " founder of Mettray reform school, 618.
  " speech at Birmingham, 623.
Deventer Atheneum, 400.
Dick bequest in Scotland, 392.
Ducpetiaux, M., of Ruysselede ref. school, 612.
Dunn, Henry, principles of teaching, 771.

Earlangen, university of, 404.
Eaton, Theophilus, 298, 647.
  " dedication of School-house to, 647.
Ecuador, extent and population, 365.
Educational intelligence, 234.
  " periodicals, 138, 656.
  " biography, 295, 417.
  " interest in United States, 364.
  " magnitude of do., 445.
  " statistics, 371.
Educational development in Europe, 247.
  Three stages of learning, 247.
  Primal stage, 247.
  Schools of philosophy, 248.
  Institutions, 248.
  Second stage, 250.
  The independent teacher, 250.
  Greek language, 251.
  Classic period of Rome, 251.
  Latin language, 251.
  Christianity, 252.
  Study of languages, antiquities, philosophy, &c., 252.
  Prejudice of Ecclesiastics, 253.
  Gregory, S., 253.
Education, thoughts on, by Prof. Henry, 17.
  Mental and moral, 35.
  Public, among Cherokees, 120.
  System in Upper Canada, 186.
  Benefactors of, 202, 551.
  In Philadelphia, 93.
  Of daughters, 234.
  A Debt due to future generations, 238.
  Among Hebrews, 243, 244, 246.
  Among ancients, 249.
  Popular, in Germany and England, 267.
  Of girls, 409.
  Of woman, 567.
Elgin, Lord, on public education in Canada, 197.
Ellis, Rev. John, labors in Illinois, 226.
Emerson, G. B., on Bible & prayer in school, 344.
  " early labors of, 592.
Encyclopedia of Education, 1, 135.
Engineering, study of, 322, 361.
ENGLAND, colleges in, 260.
  Universities, 261.
  Cathedrals and conventual schools, 261.
  Popular education, 267.
  Scientific schools, 326.
  Scheme of national education for, 638.
  Educational statistics of, in 1851, 640.
  Military, naval and other special schools, 649.
  Collegiate and grammar Schools, 640.
  Denominational schools, 640.
  Public day schools, 640.
  Queen's school, at Windsor, 540.
  Minister of public instruction proposed, 639
Emulation, as a motive to study, 270.
English Language, foreign words in, 54.
English language, words of latin origin, 56.
  " " Greek origin, 51.
  " grammatical words, 58.
Europe, Universities of, 170.
Everett, E., address on Abbott Lawrence, 207.
  " address on public schools, Boston, 642.
Examination, for app. to public office, 637.

Falkland Islands, extent and population, 365.
Family system in reformatory education, 609.
Female, adult, education in Ireland, 634.
FLORIDA, extent and population, 367.
  Whites, 5 to 10, 10 to 15, 15 to 20, 367.
  Educational funds, 374.
  Academies, teachers, pupils, income, 368.
  Whites in coll., acad., and public schools, 368.
    " over 20 who can not read or write, 368
    " native born do., 368.
  Libraries, state social, Sunday, &c., 369.
Forestry, study of, 322.
FRANCE, 394, 626.
  School for girls, at Paris, 394.
    " system of education at, 395.
    " religious instruction, 396.
    " regulation, 396.
  Catalogue of the imperial library, 396.
  Military education, 626.
Free schools, as understood in England, 299.
  " as first established in New England, 301.
  " in Boston, 300.
  " in Salem, 300.
  " in Maryland, 300.
  " in Virginia, 300.
  " in New York, 300.
Freiburg, university of, 404.

Gallaudet, Thomas Hopkins, biography of, 417.
  " early life, 418.
  " Alice Cogswell, 420.
  " his interest in deaf and dumb, 421.
  " visit to Europe, 421.
  " studies in Paris, 421.
  " publications of, 424.
  " character as educator and teacher, 425.
  " interest in female education, 426.
  " teachers convention at Hfd., 426, 428.
  " Hartford female seminary, 426.
  " normal school, 428.
  " annals of education, 428.
  " Goodrich association, 428.
  " American lyceum, 428.
  " young men's institute, 428.
  " prison in Hartford, 428.
  " retreat for the insane, 429.
  " educating teachers for the west, 431.
Geometry, method of teaching, 541, 546.
GEORGIA, extent and population, 367.
  Whites, 5 to 10, 10 to 15, 15 to 20, 367.
  Colleges, teachers, pupils, income, 368.
  Academies, teachers, pupils, income, 368.
  Public schools, teachers, pupils, income, 368.
  Whites, in coll., acad., and public schools, 368.
    " over 20 who can not read or write, 368.
    " native born, do., 368.
  Libraries, state, social, college, &c., 369.
  Educational funds, 374.
  Common schools, 374.
  Blind, Deaf and Dumb, 374, 650.
Giessen, university of, 404,
Gilman, D. C., on scientific schools in Europe, 315.
Gottingen, university of, 404
Gratz, university of, 404.
GREAT BRITAIN, 385, 629.
  Appropriations for education, science, &c., 385.
    " building school-houses, 385.
    " purchase of books and maps, 385.
    " stipend of pupil teachers, 285.
    " augmentation of salaries of principals, teachers and assistants, 385.
    " training or normal schools, 385.

Great Britain, 385.
  Appropriations for incapacitated teachers, 385.
    “ committee on education, 385.
    “ inspectors of schools, 385.
    “ to board of Trade, 385.
    “ for general management, 385.
    “ central institutions, London, 385.
    “ industrial museum, Scotland, 385.
    “ museum of Irish industry, 385.
    “ royal Dublin society, 385.
    “ royal Irish academy, 385.
    “ aid to schools by examples, &c., 385.
    “ normal lace school, Ireland, 385.
    “ prizes, &c., 385.
    “ geological survey of the kingdom, 385.
    “ meteorological observations, 385.
  University for legal education, 386.
    “ parliamentary commission, 386.
    “ plan of legal, 386, 387.
  Midland Institute, at Birmingham, 388.
    “ scientific school, 388.
    “ Prince Albert's speech, 388.
  Working-men's college, 389.
Greek and Latin, teaching, by T. Lewis, 285, 480.
  “ “ advantages of studying, 285.
  “ “ must be more read, 287.
  “ “ verbal reading, 288.
  “ “ elegant translation, 289.
  “ “ effect of a memory, 294.
  “ “ oral method, 482.
  “ “ idiomatic rendering, 485.
  “ “ advantages of good translating, 486.
  “ “ written translations, 491.
  “ “ general formulas, 492.
Greenland, extent and population, 365.
Greifswald, university of, 404.
Groningen, university of, 400.
Guatemala, extent and population, 365.
Guiana, British, extent and population, 365.
  “ Dutch, “ “ 365.
  “ French, “ “ 365.

Halle, university of, 402, 404.
Hamill, Rev. S. M., on English language, 63.
  “ on school goverument, 123.
Hart, John S., on evening schools, 4.
  “ on Saxon element in English language, 33.
  “ on high school of Philadelphia, 93, 467.
Harvard College, statistics of, 405.
Harvard, John, 204.
Hebrews, education among, by Dr. Raphall, 243.
  “ schools in Egypt, 245.
  “ class of teachers, called Sopherim, 245.
  “ chief of schools, 245.
  “ school of the Sopherim, 248.
  “ “ Mishna, 248.
  “ “ Talmud, 248.
  “ scientific schools Spain and France, 248.
  “ modern do., Germany, Italy, France, 148.
  “ public schools, 243, 244.
  “ duty of parents, 243.
  “ school of prophets, 244.
  “ teachers, orators, poets, &c., 244.
  “ primary schools, 245.
  “ seminaries of the Sopherim, 245.
  “ of Egypt and Alexandria, 245.
  “ after the fall of Jerusalem, 245.
  “ College at Jamnia, 245.
Heidelberg, university of, 404.
Henry, Joseph, discourse on education by, 17.
  “ remarks on office of language 65.
Highgate, asylum for idiots, 603.
High Schools in Boston, 461.
  “ “ Philadelphia, 93, 467.
  “ “ Providence, 469.
  “ “ St. Louis, 352.
Holbrook apparatus company, 775.
Holbrook, Josiah, 204.
Holland, Dutch Universities, 397.
  University of Leyden, 397.
    “ number of students, 397.
    “ lectures in faculty on law, 397.
Holland, 397.
  University lectures in factulty on theology, 397.
    “ “ mathematics & physics, 398.
    “ “ philos'phy & humanities, 398.
    “ “ medical faculty, 398.
    “ “ numismatics, 398.
  University of Utrecht, 399.
    “ professors in, 399.
    “ number of students, 400.
  University of Groningen, 400.
    “ professors in, 400.
  Atheneum of Amsterdam, 400.
    “ Deventer, 400.
  Public schools in 1851, 401.
  Area and population, 401.
  Schools on special foundation, 401.
Homes of the poor, 211.
Honduras, extent and population, 365.
Horsford, Prof., 218.
Howe, S. G., labors in behalf of the blind, 555.
  “ “ “ “ “ idiot, 597.
Hudson Bay Territories, extent and pop'n, 365.
Huntington, Prof. F. D. unconscious tuition, 141.

Idiots, training and institutions for, 593.
  “ labors of Itard in behalf of, 593.
  “ “ Seguin, in behalf of, 593.
  “ first school for in France, 593.
  “ “ “ Prussia, 594.
  “ “ “ Switzerland, 595.
  “ “ “ Saxony, 595.
  “ “ “ England, 595.
  “ “ “ New York, 596.
  “ “ “ Massachusetts, 596.
  “ school for at Boston, 380.
  “ “ “ Barre, 380.
  “ “ “ Syracuse, 451.
  “ “ “ Germantown, 605, 598.
  “ statistics of, in United States, in 1850, 650.
  “ definition of, 598.
Idiocy, causes of, 598.
  “ definition of, 599.
  “ treatment of, 600.
  “ success in treatment of, 603, 605.
Illinois, extent and population, 367.
  Whites, 5 to 10, 10 to 15, 15 to 20, 367.
  Colleges, teachers, pupils, income, 368.
  Academies, teachers, pupils, income, 368.
  Public schools, teachers, pupils, income, 368.
  Whites, in coll., acad. and public schools, 368.
    “ over 20 who can not read or write, 368.
    “ native born, do., 368.
  Libraries, social, college, Sunday sch., &c., 368.
  Deaf mutes, blind, &c., 650.
  Newspapers, 651.
  Educational funds, school tax, wages, 375.
  Asylum for deaf mutes, 375.
    “ “ blind, 375.
Illinois College, history of, 225.
  “ “ faculty of, 230.
  “ “ board of trustees, 227.
  “ “ introduction of manual labor, 228.
  “ “ financial crisis, 229.
  “ “ endowment, 230.
Improvement of schools, plan for, 721.
  “ “ in Connecticut, 685.
  “ “ in Rhode Island, 723.
Index to Barnard's National Education, 747.
  “ “ School Architecture, 742.
Indiana, extent and population, 367.
  Whites, 5 to 10, 10 to 15, 15 to 20, 367.
  Colleges, teachers, pupils, income, 368.
  Academies, teachers, pupils, income, 368.
  Public schools, teachers, pupils, income, 368.
  Whites in coll., acad. and public schools, 368.
    “ over 20 who can not read or write, 368
    “ native born, do., 368.
  Libraries, state, college, social, &c., 369.
  Deaf mutes, blind, insane, 650.
  Newspapers, 651.
  Educational funds, 375.
  Public tax, 375.

INDIANA, 367.
Institution for deaf and dumb, 376.
" for blind, 376.
Industrial education, 314.
Industrial schools, 319.
" universities, 322.
Industrial school at Windsor Forest, 636.
Infant school, manuals for teachers in, 772.
Influence, power of unconscious, 141.
Innspruck, university of, 404.
Inquiries respecting a school, schedule of, 686.
" " location, &c., 686
" " school premises, 686.
" " school-houses, 687.
" " apparatus and library, 687.
" " grade and management, 688.
" " teacher, 688.
" " attendance, 688.
" " course of instruction, 689.
" " physical education, 689.
" " moral and religious, 689.
" " intellectual, 690.
" " inthetical, 690.
" " esthetical, 690.
" " studies and text-books, 690.
" " methods, 690.
" " spelling, 691.
" " reading, 692.
" " composition, 692.
" " grammar, 692.
" " arithmetic, 693.
" " penmanship 693.
" " geography, 693.
" " history, 694.
" " drawing, 694.
" " music 695.
" " government, 695.
" " examinations, 696.
" " parental interest, 696.
Insane in United States, statistics of in 1850, 650.
Instruction, religious, 113.
" denominational, 113.
" juvenile, 144.
" dignity of, 146.
Institute for teachers, origin of, 699.
Intellectual education, 26, 690.
Introductory discourse by Joseph Henry, 17.
" " remarks on, by Prof. Bache, 32.
" " by Prof. Bache, 477.
Inventions of science, 164.
IOWA, territory and population, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, public school, Sunday school, 369.
Newspapers, 651.
Whites 5 to 10, 10 to 15, 15 to 20, 367.
Educational funds in 1854, 374.
Common school fund, 374.
School tax, 375.
Cost of school-houses, 375.
Teachers' wages, 375.
Deaf and dumb, 375, 650.
Blind, 375, 650.
IRELAND, 390, 633.
Appropriation for normal establishment, 390.
" professors, assistants, &c., 390.
" teachers under training, 390.
" central model school, 390.
" Glasnevin model school, 390.
" Glasnevin model garden, 390.
Appropria'n for Albert agricultural train'g, 390.
" nineteen model agricul. schools, 390.
" building school-houses, 390.
" salaries of teachers, 390.
" premiums for neatness, &c., 390.
" aged and infirm teachers, 390.
" inspection department, 390.
" book department, 390.
IRELAND, 390, 633.
" official establishment at Dublin, 390.
Endowed school commission, 390.
Female adult school, 634.
Normal lace school, 635.
Irregular attendance, 460, 467, 468.
Irish Quarterly Review, extracts from, 611, 634.
Itard, labors in behalf of idiots, 593.

Jameson, Mrs., on sep. of sexes in schools, 463.
Jarvis Edward, on idiocy and insanity, 599.
Jena, university of, 404.
Jews, see Hebrews.
Journal of Education, want of, 1.
Journals of Education in England, 414.
" " France, 413.
" " Germany, 413.
" " United States, 656.
Journal of R. I. Institute of Instruction, 755.
Julius, Dr., of Prussia, 587.
Juvenile criminality, 345, 609.
Juvenile population in United States, 367.

Keil, university of, 404.
Kelly, Robert, obituary, 655.
KENTUCKY, extent, population, white, slave, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income of, 368.
Whites in coll., acad. and public schools, 368.
" over 20, who can not read or write, 368.
" native born, do., 368.
Libraries, state, social, college, school, 369.
Deaf, blind, insane, 650.
Newspapers, &c., 651.
Educational funds and statistics, 377.
School tax, 377.
Institution for deaf and dumb, 377, 444.
" for blind, 377.
Kingsbury, John, 725.
Koenigsberg, university of, 404.

Lace, school for teaching working in, 635.
Land, appropriation of, for education, 202.
Language, in India, 33, 34.
" study of Sanscrit by East India Co., 33.
" Ethnographical theory of, 34.
" Sanscrit, 35.
" Zend, or old Persian, 35.
" Celtic, 35.
" Teutonic, 37.
" classic, 26.
" Slavonic, 36.
" six groups, 36.
" classification of, 35, 36.
" affinity between English & Latin, 40, 41.
" Norman, 48.
" study of, 76, 252.
" what necessary in educational course, 77.
" study of clasic, 77, 175, 284.
Latin words in English language, 44.
Latin and Greek, method of teaching, 234, 480.
Lawrence, Abbott, biography of, 205.
" " portrait of, 205.
" " will, 211.
" " letter of, 226.
" " bequest to scientific school, 220.
" " " model lodging house, 211.
Lawrence, Amos, letter to Abbott Lawrence, 213.
" " life and correspondence, 205.
Lawrence, Mass., library for factory operatives, 649.
Lawrence Scientific School, 217.
engraving of building, 216.
plan of, and laboratory, 220.
requisites for admission, 221.
requirements of students, 221.
violation of regulations, 221.
degrees, 221.
course of instruction, 221.
museums, 224.
fees, 224.

department of chemistry, 224.
expenses, 224.
Leach, D., report by, 468.
Learning, classical, 80.
" aim of, 162.
Legal education in England, 386.
Legal provision for children in factories, 705.
Leibintz, 262.
Leiber, Dr., on "Cooper Scientific Union," 652.
Leipsic, university of, 403.
Lemberg, university of, 403.
Leyden, university of, 397.
Library of education, plan of, 1, 135.
Libraries in Canada, 195, 200.
" in United States, 369.
" in states, and univer. of Europe, 370.
Louisiana, extent, population, whites, slaves, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, state, social, college, school, 369.
Newspapers, &c., 651.
Statistics of blind, deaf, insane, 650.
Cities, 470.
Educational funds, 377.
Institution for deaf and dumb, 377, 444.
" for the blind, 377.

Maine, extent, population, whites, 367.
Whites, 5 to 10, 10 to 15, 15 to 30, 367.
Libraries, social, college, school, &c., 369.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites over 20, who can not read or write, 368.
" native born, do., 368.
Educational funds, and tax for schools, 378.
Number of cities, towns, &c., 378.
State reform school, 378.
Newspapers, &c., 650
Statistics of insane, blind, &c., 650.
Mann, Horace, lectures on education, 772.
" on educational policy of Connecticut, 719.
Mansfield, E. D., on American education, 773.
Manual labor schools, 228.
Manufacturing establishments, children in, 705.
Marburg, university of, 404
Maryland, extent, population, white, slave, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, state, college, social, school, &c., 369.
Deaf mutes, blind, insane, 650.
Newspapers, 651.
Cities, 470.
House of refuge, 379.
Deaf, dumb, and blind, 379.
Massachusetts, extent and population, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites, in coll., acad., and pub. schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, state, social, college, school, 369.
Newspapers, 651.
Statistics of deaf, blind, insane, 650.
Cities, 470.
Educational funds, 379.
Town tax, 379.
Public high schools, 379.
Normal schools, 379.
Scholarship in colleges, 379.
Board of education, 379.
Teacher's wages, 379.
State Reform school for boys, 379.
" " " girls, 380.
School for Idiots, 380.
Private establishment for Idiots, 380.
Perkins' institution for blind, 380.
Deaf and dumb, 380.
Massachusetts general hospital, 561.
Mathematics, subjects and methods of inst., 533.
" the "Commission" of, in France, 533.
" proper subjects for examination, 533.
" subjects discussed, 533.
" arithmetic, 534.
" programme of arithmetic, 539.
" geometry, 541.
" programme of geometry, 546.
Mayhew, Ira, on popular education, 773.
McElligott, J. N., on debating, 495.
McKeen, Catharine, on female education, 567.
McKeen, Joseph, obituary of, 655.
Mexico, extent and population, 365.
Michigan, extent and population, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites, in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, social, college, school, &c., 369.
Newspapers, 651.
Statistics of deaf mutes, blind, &c., 650.
Cities, 470.
Educational funds, 447.
Normal school, 447.
Asylum for deaf, dumb, and blind, 444, 447.
Middlebury College, statistics of, 405.
Military schools in France, 628.
" " Russia, 383.
Mining school at Freiberg, 321.
" " in Germany, 328.
" " in Russia, 382.
Minnesota, extent, population, white, &c., 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Academies, teachers, pupils, income, 368.
Whites over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, state, social, 369.
Mississippi, extent, population, &c., 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Educational funds, 447.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do , 368.
Libraries, state, college, &c., 369.
Newspapers, &c., 651.
Deaf-mutes, blind, &c., 650.
Institution for deaf, dumb, and blind, 369.
Missouri, extent, population, whites, slaves, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Libraries, state, college, social, &c., 369.
Deaf mutes, blind, insane, &c., 650.
Newspapers, &c., 651.
Cities, 470.
Educational Funds, 448.
Institution for deaf and dumb, 448.
" blind, 448.
Model Lodging Houses, 212.
Monitorial system of instruction in 1686, 307.
Moral discipline, nature, object and end of, 107.
" " in schools, 107, 336.
" " what is it, 108.
" " how to train children, 109.
" " how secured, 108.
" " teacher, a model, 109.

Morals in schools, method of teaching, 336, 337.
“ “ in Prussia, 336.
“ “ in Holland, 336.
“ “ how taught in com. schools, 336.
“ “ what is it to teach, 336.
“ “ principles to be taught, 337.
“ “ parents and children, 337.
“ “ voice and example of teacher, 337.
“ “ Christian teacher, 338.
“ “ “ “ influence of, 339.
“ “ sacred Scriptures, 339.
“ “ normal school in Germany, 339.
“ “ books, 340.
“ “ Bible, 340.
“ “ books used in schools in U. S., 340.
“ “ voluntary discussions, 341.
“ “ jury for trying imagin. cases, 343.
Munich polytechnic school, 322.
Munich, university of, 404.
Munster, university of, 404.

National convention of friends of Ed., call for, 3.
“ “ first meeting in 1849, 3.
“ “ second meeting in 1850, 4.
National education in Europe, 747.
“ “ United States, 765.
Natural laws, to be taught the laborer, 629.
NEW BRUNSWICK, extent and population, 365.
NEW ENGLAND, early Free School of, 301.
Colleges in 1855–6, 405.
NEWFOUNDLAND, extent and population, 365.
NEW GRENADA, “ “ 365.
NEW HAMPSHIRE, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Libraries, state, social, college, school, &c., 369.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Educational funds, 448.
Newspapers, 650.
Deaf mutes, blind, &c., 651.
NEW HAVEN, early attention to pub. schools, 298.
NEW JERSEY, extent and population in 1850, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, 1850, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites, in coll., acad., and public schools, 368.
“ over 20 who can not read or write, 368.
“ native born, do., 368.
Libraries, state, social, college, school, &c., 369.
Newspapers, 651.
Deaf mutes, blind, insane, 650.
Educational funds, 449.
State normal school, 449.
NEW MEXICO, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Academies, teachers, pupils, 368.
Whites over 20 who can not read or write, 368.
“ native born, do., 368.
Newspapers and periodicals, pub. in U. States, 651.
NEW YORK, extent and population in 1850, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, 1850, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
“ over 10 who can not read or write, 368.
“ native born, do., 368.
Libraries, state, social, college, school, 369.
Cities, 470.
Deaf mutes, blind, insane, 650.
Newspapers, &c., 651.
Educational funds, 449.
State normal schools, 450,
Institutions for deaf and dumb, 450.
“ “ blind, 451.
“ “ idiots, 451.
House of refuge, 451,
Journal of Education, 656.
Juvenile Asylum, 451.
NICARAGUA, extent and population, 365.
North British Review, extracts from, 637.
NORTH CAROLINA, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges in 1850, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
“ over 20 who can not read or write, 368.
“ native born, do., 368.
Libraries, state, college, students, &c., 368
Newspapers, 650.
Deaf mutes, blind, insane, 651.
Educational funds, 451.
Asylum for deaf and dumb, 451.
Northend, C., parent and teacher, 773.
Normal school in Upper Canada, 192.
“ “ Germany, 268.
“ “ New England, 587.
“ “ series of conventions, 588.
“ “ first in Massachusetts, 588.
“ “ remarks on, Rev. G. Putnam, 588.
“ “ “ John Quincy Adams, 589.
“ “ “ Daniel Webster, 590.
“ “ “ Rev. Dr. Robbins, 592.
Normal schools in Conn., statistics of, 373.
“ “ Massachusetts, “ 379.
“ “ Michigan, “ 447.
“ “ New Jersey, “ 449.
“ “ New York, “ 450.
“ “ Rhode Island, “ 454.
Norman conquest, influence of Eng. lang., 49.
Norwich, university of, 405.
Nott, Eliphalet, 204.
NOVA SCOTIA, extent and population, 365.

Obituary, 654.
Officers of American Association in 1849, 3.
“ “ “ 1850, 4.
“ “ “ 1851, 6.
“ “ “ 1852, 6.
“ “ “ 1853, 7.
“ “ “ 1854, 8.
“ “ “ 1855, 8.
OHIO, extent and population in 1850, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges in 1850, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites, in coll., acad., and public schools, 368.
“ over 20 who can not read or write, 368.
“ native born, do., 368.
Libraries, social, college, school, &c., 369.
Cities, 470.
Deaf mutes, blind, insane, 650.
Newspapers, 651.
Educational funds, 452.
Colored schools, 453.
Asylum for deaf and dumb, 452.
Institution for the blind, 452.
Journal of education, 656.
Olmsted, Denison, on democratic tendencies of science, 165, 234.
Olmutz, university of, 404.
Oral discussion, 502.
Oral instruction, in language, 482.
Oratory, as effected by debating, 505.
OREGON, extent and population in 1850, 357.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Orphan children, 609, 611.

Packer collegiate institute for girls, 579.
“ “ “ “ plan of, 582.
Page, D. P., theory and practice of teaching, 770.
Palmer, T. H., Teachers' Manual, 770.
PANAMA, extent and population in 1850, 365.
PARAGUA, extent and population in 1850, 365.
Parents should pay toward tuition of children, 703.
Paris, central schools of art, 322, 326.
Paris, university of, 255.
Parker, Mrs. Harriet L., benefaction of, 580.

Parker, R. G., history of free school, Roxbury, 301.
PATAGONIA, extent and population in 1850, 365.
Paton, R., manufacturer of school furniture, 788.
Patronage societies for reformed juveniles, 613.
Peabody, George, of London, 238.
" portrait of, 237.
" gift to town of Danvers, 238.
" high school prizes, 241.
" internat'l entertainm't, London, 242.
Peabody Institute, at Danvers, 238.
" " educational character of, 240.
Pedagogy, science of, 264.
PENNSYLVANIA, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, 1850, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born do., 368.
Libraries, state, social, college, &c., 369.
Cities, 470.
Deaf mutes, blind, insane, 650.
Newspapers, 651.
Institution for the blind, 453.
" " deaf and dumb, 454.
House of Refuge, 454.
Statistics of public schools in 1854, 452.
School Journal, 656.
Pensions for teachers, 196.
Periodicals in U. S., statistics of, 650.
Periodicals, educational, 413, 656.
Perkins, Thomas Handasyd, portrait of, 551.
" biography of, 551.
" gift to Mass. general hospital, 554.
" " Perkins' institute for blind, 558.
" " Mercantile library assoc., 558.
" " Boston Athenæum, 560.
PERU, extent and population, 365.
Pestalozzi, 611.
Peters, A., articles by, 137, 223, 234, 235.
Philadelphia, proceedings of association at, 4.
" public high school of, 93, 467.
" " " plan of, 95, 96.
" " " cost of, 94.
" " " architecture, &c., 102.
" public schools, statistics of, in 1855, 465.
" " salaries of teachers, 466.
" normal school, 466.
Philbrick, John D., 659.
Philology, 285, 360.
Philosophy and Arts in Yale col., depart. of, 359.
" " history of, 359.
Physical science, support of higher schools, 515.
Playfair, Dr., scientific schools of Europe, 318.
Polytechnic schools, 322, 328.
Porter, John A., plan of agricultural school, 329.
Porter, Noah, prize essay by, 721.
Potter, Alonzo, author of constitution of asso., 4.
" remarks on Prof. Hart's lecture, 60.
" " Mr. Cole's lecture, 86.
" " consolidation of colleges, 471.
" " the school, 769.
Potter, E. R., on Bible and prayer in school, 344.
Professor, original meaning of, 258.
Programme of Arithmetic, 539.
" Geometry, 546.
Providence, public instruction in 1855, 467.
Number of scholars, 467.
Irregular attendance, 468.
Truancy, 469.
Expenses of schools, 469.
" reform schools, 469.
Population in 1855, 469.
Taxes, 469.
PRUSSIA, universities of, 402.
Location and date of foundation, 402.
Number of teachers and students, 402.
Public schools in United States, in 1850, 368.
" " in 1854, 447, 371.
Public Libraries, 369, 370.
Punctuality of school attendance, 467.
Punishment in moral training, 110, 130.

Quadrivium, 254.
Questions for examining a school, 686.
Quincy, Josiah, on benefactors of Education, 296.

Rate bills to be paid by parents, 703.
Raphall, Morris J., on educa. among Hebrews, 243.
Reasoning powers, cultivation of, 28.
Reform. education, 609.
" " family training, 609.
" " agricultural labor, 609.
" " rural & indus. schools of Europe, 610.
" " agricultural colonies of France, 609.
" " report on " " 611.
" " agricultural col. of England, 611.
" " " " Switzerland, 611.
" " " " Holland, 611.
" " pioneer and model ref. of Europe, 610.
" " M. Bazin, colony in France, 612.
" " school at Mettray, 622.
" " No. of reform. colonies in France, 623.
" " military discipline, 623.
Reform schools, 611.
" " at Meriden, Conn., 373.
" " at Cape Elizabeth, Me., 378.
" " at Baltimore, Md., 379.
" " at Westborough, Mass., 379.
" " at Lancaster, " 380.
" " at Randall's Island, N. Y., 451.
" " at Rochester, " 451.
" " at Cincinnati, Ohio, 452.
" " at Philadelphia, Penn., 454.
" " at Providence, R. I., 455.
" " at Horn, 616.
" " at Mettray, France, 618.
Refuge, houses of, for young criminals, 611.
Regent of a university, origin of, 258.
Religious instruction and training, 29, 113.
Rhetoricians, schools of, in Greece and Rome, 248.
RHODE ISLAND, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites, in coll., acad., and pub. schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, social, college, school, &c., 369.
Educational funds, 454.
Statistics of public schools in 1853, 454.
" normal school, 454.
Reform school, 454.
Cities, 470.
Deaf mutes, blind, insane, 650.
Newspapers, 651.
Journal of Education, 656.
Fundamental ideas of settlement, 723.
Reasons for neglect of public schools, 724.
Mr. Barnard's labors in, 725.
Progress of schools from 1843 to 1848, 728.
Resolution of Legislature, 733.
Richards, J. B., instruction of idiots by, 605.
Richards, Z., remarks on classical culture, 89.
" discipline moral and mental, 107.
Richmond (Va.) Female institute, 231.
" " plan of building, 231.
Roman jurisprudence, 254.
Romans, cultivated class of, 249.
Roscelin, founder of scholastic system, 255.
Ross, W. P., on education among Cherokees, 120.
Rostock, university of, 404.
Roxbury, free school at, 301.
RUSSIAN AMERICA, extent and population, 365.
RUSSIA, university of St. Petersburg, 381.
University of Moscow, 381.
" Kharkoff, 381.
" Kasan, 381.
" St. Vladimer, 381.
" Dorpat, 381.
Imperial pub. library of St. Petersburg, 381.
Schools for special instruction, 382.

Military schools, 382, 383.
Naval schools, 382.
High school of miners, 382.
Agricultural schools, 382.
“ academy near Moscow, 382.
Polytechnic institute, 383.
Construction of roads and bridges, 383.
Special school of design, 383.
Philological institute, 383.
Oriental languages, 383.
Post-office service, 383.
St. Petersburg military school, 383.
Moscow military school, 383.
Western military school, 384.
Chief engineer's school, 384.
Michael artillery school, 384.
Education of military officers, 628.
Russell, Lord John, scheme of National Ed., 638.
Ruysselede, reform school at, 612.
Ryerson, Egerton, labors of, in Canada, 191.

Sacred Scriptures, 132, 339, 340, 344.
Saegert's school for idiots in Berlin, 594.
Salaries of teachers, 368, 447.
SAN SALVADOR, extent and population, 365.
SAXONY, educational statistics, 316.
Agricultural institute, 321.
Universities, 403.
School for idiots, 595.
Scandinavian words, 51.
Scholasticism, origin of, 255.
Schools, agricultural, 321, 322, 328.
“ architecture, 320, 328.
“ collegiate, 640.
“ commercial, 626.
“ conventual or cloister, 299, 254.
“ corporation, 640.
“ deaf and dumb, 626, 640.
“ denominational, 640.
“ engineering, 315, 322, 317.
“ fach, 328.
“ factory, 640.
“ female, 231.
“ forrestry, 321, 328, 640.
“ foundry, 640.
“ free, 298.
“ industrial, 319, 322, 626, 640.
“ military, 328, 640.
“ mining, 317, 321, 328.
“ music, 328.
“ naval and navigation, 328, 640.
“ normal, 371, 379.
“ orphan, 640.
“ polytechnic, 322, 328.
“ prison, 640.
“ public, 368, 371.
“ ragged, 640
“ scientific, 315.
“ special, 319.
“ surgical, 328.
“ trade, 322, 328.
“ veterinary, 328.
“ workhouse, 640.
School apparatus, list of, 775.
“ architecture, 740.
“ associations, plan of, 721.
“ “ topics for discussion, 709.
“ attendance, 688.
“ desks and seats, diagonal arrang't of, 785.
“ journals, 656.
“ houses, plan of, 95, 231, 352, 410, 582.
“ “ questions respecting, 686.
“ and schoolmaster, contents of, 769.
Science, and the state, 520.
“ “ church, 520.
“ “ school, 521.
“ “ workshop, 523.
“ “ laboratory, 524.
“ “ press, 525.
“ “ family, 526.
“ “ society, 527.
Science, democratic tendencies of, 164.
“ influence of, 165.
“ inventions of, 165, 170.
“ institutions of, 170.
“ effect on all classes, 167.
Scientific schools of Europe, 315.
“ “ Belgium, 316.
“ “ France, 315.
“ “ Saxony, 316.
“ “ Dresden, 316.
“ “ Russia, 317.
“ “ England, 318, 326.
SCOTLAND, educational reform, 391.
Parochial schools, 391.
Salaries of professors at Scotch univer., 391.
The Dick bequest, 392.
System of, effected by educational test, 637.
Journal of Education, 414.
Seguin, E., labors in behalf of the idiot, 593.
Sexes, separation of, in schools, 461.
Shuttleworth, Sir Sames Kay, extracts from, 636.
Silliman, Prof. B., tribute to labors of, 641.
Smithson, James, bequest to American gov., 204.
Social condition of all classes in U. States, 158.
SOUTH CAROLINA, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and pub. schools, 368.
“ over 20 who can not read or write, 368.
“ native born, do., 368.
Libraries, state, college, school, &c., 369.
Educational fund, 455.
Free schools, 455.
Asylum for deaf and dumb, 455.
Staunton, Dr., on introduction foreign words, 65.
ST. LOUIS, system of public instruction, 348.
System of pub. inst. comp. with other cities, 348.
Value of property, 348.
Engraving of high school, 349.
First public school, 349.
Number of public schools in 1854, 349.
Tuition fee, 350.
Salaries of teachers, 350.
Teachers from the East, 350.
Teachers' associations, 350.
Efficiency and economy of public schools, 351.
Plans of high school building, 352–355.
Stowe, C. E., on Bible and prayer in school, 344.
Sturtevant, J. M., address by, 227.
Support of schools, how borne, 703.
Syracuse, asylum for idiots at, 605.
Tappan, H. P., on educational development, 234.
Taxation for school purposes, in Connecticut, 372.
“ “ Indiana, 375.
“ “ Louisiana, 377.
“ “ Maine, 378.
“ “ Massachusetts, 389.
“ “ New York, 450.
“ “ Ohio, 452.
“ “ Pennsylvania, 453.
“ “ Rhode Island, 454.
“ “ Texas, 455.
“ “ Boston, 461.
“ “ Philadelphia, 465.
“ “ Providence, 469.
Teachers, example of, 132.
“ pensioned in Upper Canada, 196.
“ object of the profession, 141, 144.
“ moral power of, 145, 162.
“ respect for, 145.
“ natural energy of, 145.
“ success of the calm, 146.
“ failure of the feverish, 146.
“ temper of, 146.
“ what are they, 163.
“ training of, 161.
“ moral office of, 234.
“ letters to a young, 357, 561.
“ normal school, 357.
“ necessity and value of knowledge, 358.

Teachers self-control, 358.
" sound principle, 358.
" resolutions and purposes, 358.
" remarks of editor on Letters, 358.
" institutes, origin of, 681, 691.
Teacher, the, by Abbott, contents of, 769.
Teaching as a profession, 234.
Tennessee, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad, and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, college, school, &c., 369.
Educational funds, 455.
Asylum for blind, deaf and dumb, 455.
Cities, 470.
Deaf mutes, blind and insane, 650.
Newspapers, 651.
Territorial extent of American States, 365.
Texas, extent and population in 1850, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Libraries, college, school, &c., 369.
Educational funds, 455.
Deaf mutes, blind, &c., 650.
Newspapers, 651.
Thayer, G. F., letters to a young teacher, 357, 561.
" " introductory, 357.
" " on self-examination, 361.
" " on self-discipline, 362.
" " on self-goverument, 364.
" " on self-renunciation, 365.
Theodolph, of Germany, 254.
Thompson, Zadoc, 654.
Tice, Mr., remarks on public instruction, 351, 356.
Tillinghast, Nicholas, 655.
Topics for discussion in educational meet'gs, 709.
Training of children, 109.
Training of the mind, 141, 179.
Translation, principles of, 486.
" benefits of idiomatic, 491.
Trinity college, statistics of, 405.
Trivium, in division of the sciences, 254.
Truancy, 460.
Tubingen, university of, 404.
Tuition, should be paid by parents, 703.

Unconscious tuition, 141, 234.
" " of human face, 147.
" " of the voice, 149.
" " of manners, 150.
" " of the imagination, 153.
" " of spirit of teacher's life, 158.
United States coast survey, office of, 103.
Educational interest of, 364.
Tables and summaries of schools, 364, 447.
Extent of territory, 364.
Pop. of the several States at decen. periods, 364.
No. of colleges, acad., and public schools, 364.
" newspapers, &c., 651.
Amt. funds set apart for schools, coll., &c., 364.
Statistics of deaf, blind, insane, and idiots, 650.
Statistics in reference to education, 364, 447.
University, National, remarks on, 476.
" original constitution of, 256.
Unviversity of Virginia, 456.
" Vermont, 405.
Universities of Austria, 403.
" Prussia, 402.
" Russia, 381.
" Saxony, 403.
" Germany, 404.
" Scotland, 391.
Uruguay, extent and population, in 1850, 367.
Utah, extent and population in 1850, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Academics, teachers, pupils, income, 368.
Public school, teachers, pupils, income, 368.
Whites attending school, 368.
" over 20 who can not read or write, 368.
Utretcht, university of, 399.

Venezuela, extent and population, 365.
Vermont, extent and population in 1850, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad, and public schools, 368.
" over 20 who can not read or write, 368.
" native born do., 368.
Libraries, college, school, &c., 369.
Educational funds, 456.
Deaf, dumb, and blind, 456, 650.
Deaf mutes, blind, &c., 650.
Newspapers, 651.
Veterinary schools, 328.
Vienna Polytechnic school, 322.
Virginia, extent and population, 367.
Juvenile pop., 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, state, social, college, school, &c., 369.
Cities, 470.
Deaf mutes, blind, &c., 650.
Newspapers, 651.
University of Virginia, 456.
Military institute, 457.
Deaf, dumb, and blind, 457.

Wadsworth, James S., 204, 769.
Wales, New South, 639.
Educational statistics of, 639.
Waterville College, 405.
Webster, Daniel, on Normal schools, 590.
" " on educational policy of N. E., 591.
" first speech in behalf of do., 591.
Wesleyan University, statistics of, 405,
Western College Society, 235.
West India Islands, extent and population, 365.
Weston, Rev. C. P., 234.
Wichern, T. H., reform schools of, 610, 616.
Wilbur, H. B., labors in behalf of idiots, 597.
Willard, Mrs. Emma, and female education, 699.
William of Champeaux, school of logic, 256.
Williams College, statistics of, 405.
Windsor Forest school, 636.
Winthrop, Robt. C., at dedication of Winthrop school-house, 645.
" on common schools of N. Eng., 645.
Wisconsin, extent and population, 367.
Whites, 5 to 10, 10 to 15, 15 to 20, 367.
Colleges, teachers, pupils, income, 368.
Academies, teachers, pupils, income, 368.
Public schools, teachers, pupils, income, 368.
Whites, in coll., acad., and public schools, 368.
" over 20 who can not read or write, 368.
" native born, do., 368.
Libraries, state, social, &c., 369.
Deaf and dumb. 457, 641.
Institution for the blind, 457.
Deaf mutes, and blind, 650.
Newspapers, 651.
Journal of Education, 656.
Woman, intellectual education of, 567.
Woodcock, V., plan for arr'ng seats & desks, 784.
Words, meaning of, 78.

Yale College, Statistics of, 405.
Yale Scientific School, 359.
Ypsilanti, normal school at, 447.
Yverdon, Pestalozzi's labors at, 611.

Zootechny, study of, 322.
Zoology, museum of, 363.

THE

American Journal of Education

AND

COLLEGE REVIEW.

No. I.—AUGUST, 1855.

In the great educational movement now going forward on this Continent, and especially throughout all the states in which the English language prevails, there has seemed for many years to the undersigned to exist, if not a demand, at least the want, not only of an American association of the friends of universal education, but of a series of publications, which should, on the one hand, embody the matured views and varied experience of wise statesmen, educators and teachers in perfecting the organization, administration, instruction and discipline of schools, of every grade, through a succession of years, under widely varying circumstances of government, society and religion; and on the other, should harmonize conflicting views, expose real deficiencies, excite to prudent and efficient action, and serve as a medium of free and frequent communication between the friends of education, in every portion of the great field.

In furtherance of these objects, a *Plan of Central Agency for the increase and diffusion* of knowledge on this subject was submitted to the American Association for the Advancement of Education, at its annual meeting in Washington in 1854. One feature of this plan was the publication of a Journal and Library of Education; the former to be issued in monthly or quarterly numbers, to embrace the current educational intelligence of the world, and the discussion of topics of immediate and pressing interest;—the latter to consist of a series of independent treatises, each devoted to the development of an important subject, or department, and embodying the reflections and experience of many minds, and the working and results of many institutions; and the whole, when complete, to constitute an Encyclopedia of Education. The plan was referred to a committee—considered and approved; and the Standing Committee were authorized to carry it into execution as far and as fast as the funds of the Association should admit. In the absence of any funds belonging to the Association, and of any pledge of pecuniary coöperation, on the part of individuals, the Committee have not taken any steps to establish a central agency for the advancement of the objects for which the association was instituted, or felt authorized to provide for any publication beyond the proceedings of its last annual meeting. Under these circumstances, the undersigned has undertaken on his own responsibility, to carry out the original plan submitted by him, so far as relates to the publication both of the Journal, and the Library—relying on the annual subscription of individuals in different states, and interested in different allotments of the great field, who desire to be posted up in the current intelligence and discussion of schools and education, to meet the current expenses of the former; and on special contributions in aid of the latter, by persons or institutions interested in particular treatises, as their preparation shall be from time to time advanced and announced.

The First Number of the American Journal of Education will be issued in August, on terms which will be set forth by the publisher. As it will be devoted exclusively to the proceedings of the American Association for 1854, it will not present the usual variety and arrangement of topics, which will characterize the succeeding numbers.

The first treatise or volume of the Library of Education will be published in the course of 1856, under the following title, "NATIONAL EDUCATION IN THE UNITED STATES; or *Contributions to the History and Improvement of Common or Public Schools, and other means of Popular Education in the several States*," on terms which will be hereafter announced.

HARTFORD, CONN., May, 1855.

HENRY BARNARD.

P. S. After much of the copy for this Number of the American Journal of Education was in type, a conference was held with the Rev. Absalom Peters, D. D., in reference to the plan of an Educational Journal contemplated by him under the title of The American College Review and Educational Journal, which has led to the combination of our respective plans, and a joint editorship of THE AMERICAN JOURNAL OF EDUCATION AND COLLEGE REVIEW.

NOTE TO NEW EDITION.—The agreement for the joint proprietorship and editorship of the American Journal of Education and College Review, having been dissolved by mutual consent and for mutual convenience, the undersigned has resumed the publication of the American Journal of Education on his original plan. A portion of the material intended for the first volume of the American Library of Education, will be published in the American Journal of Education.

Dr. PETERS will continue the publication of an educational periodical to which he has given the joint name. H. B.

HARTFORD, January 7, 1856.

THE

AMERICAN ASSOCIATION

FOR THE

ADVANCEMENT OF EDUCATION.

THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION, originated in a "Convention* of the Friends of Common Schools and of Universal Education," which met in the City of Philadelphia, on the 17th, 18th and 19th of December, 1849, and, by adjournment, on the 28th, 29th and 30th of August, 1850, with the following Board of

OFFICERS FOR 1849.

HORACE MANN, of Massachusetts, *President.*

JOSEPH HENRY, of Washington City,	*Vice-President.*
JOHN GRISCOM, of New Jersey,	"
SAMUEL LEWIS, of Ohio,	"
Rt. Rev. ALONZO POTTER, of Pennsylvania,	"
GREER B. DUNCAN, of Louisiana,	"
Charles Northend, of Massachusetts,	*Secretary.*
P. Pemberton Morris, of Pennsylvania,	"
S. D. Hastings, of Wisconsin,	"
Solomon Jenner, of New York,	"

Business Committee.—Henry Barnard, of Connecticut; John S. Hart, of Pennsylvania; Nathan Bishop, of Rhode Island, H. H. Barney, of Ohio; Thomas H. Benton, Jr., of Iowa.

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* This Convention assembled on the following "*Call for a National Convention of the friends of Common Schools and of Universal Education*," issued mainly through the efforts of Alfred E. Wright, of Philadelphia.

"The undersigned, deeming that the great cause of POPULAR EDUCATION in the United States, may be advanced, and the exertions of its friends strengthened and systematized, by mutual consultation and deliberation, respectfully request the *friends of Common Schools* and of *universal education* throughout the Union, to meet in Convention, at the city of Philadelphia, on Wednesday, the 17th day of October next, at 10 o'clock, A. M., for the promotion of this paramount interest of our Republican Institutions.

ALONZO POTTER, Philadelphia. GEORGE M. WHARTON, President of Board of Controllers of Public Schools, county of Philadelphia. JOSEPH R. CHANDLER, President of the Board of Directors of Girard College, Philadelphia. JOHN S. HART, Principal of Central High School, Philadelphia. ALFRED E. WRIGHT, Editor of "Wright's Casket" and "Paper," Philadelphia. TOWNSEND HAINES, State Superintendent of Public Schools of Pennsylvania. CHRISTOPHER MORGAN, State Superintendent of Public Schools of New York. THOMAS F. KING, State Superintendent of Public Schools of New Jersey. HENRY BARNARD, Commissioner of Public Schools of Rhode Island. SETH P. BEERS, State Superintendent of Public Schools of Connecticut. WILLIAM G. CROSBY, Secretary of Board of Education, Maine. RICHARD S. RUST, Commissioner of Public Schools, New Hampshire. IRA MAYHEW, Superintendent of Public Instruction, State of Michigan. SAMUEL GALLOWAY, State Superintendent of Public Schools, Ohio. ROBERT J. BRECKENRIDGE, Superintendent of Public Schools, Kentucky. HORACE MANN, Massachusetts. S. S. RANDALL, Albany. Horace Eaton, State Superintendent of Public Schools of Vermont. H. S. COOLEY, State Superintendent of Common Schools, Illinois. THOMAS H. BENTON, JR., State Superintendent of Public Schools, Iowa. SALEM TOWN, New York. WILLARD HALL, Delaware. M. D. LEGGETT, Editor of School Clarion, Ohio. ASA D. LORD, Editor of the Ohio School Journal. D. L. SWAIN, President of the University of North Carolina. J. H. INGRAHAM, Nashville, Tennessee. E. LANE, Sandusky, Ohio. A. CHURCH, President of University, Athens, Georgia. M. L. STOEVER, Pennsylvania College, Gettysburg. H. B. UNDERHILL, Principal Natchez Institute, Mississippi. JAMES L. ENOS, Editor of North Western Educator, Chicago, Illinois. EDWARD COOPER, Editor of District Schoo Journal, Albany, New York. PHILIP LINDSEY, President of University of Nashville. A. D. BACHE, Superintendent of United States Coast Survey, Washington. H. W. HEATH, Maryland College of Teachers. JOSIAH HURTY, Sparta, Ohio. R. MORRIS, Jackson, Mississippi. THOMAS ALLEN CLARK, New Orleans.

OFFICERS FOR 1850.

Rev. ELIPHALET NOTT, of New York,	*President.*
JOSEPH HENRY, of Washington, D. C.,	*Vice-President.*
Rt. Rev. ALONZO POTTER, of Pennsylvania,	"
JOHN GRISCOM, of New Jersey,	"
GIDEON F. THAYER, of Massachusetts,	"
P. Pemberton Morris, of Pennsylvania,	*Secretary.*
John Kingsbury, of Rhode Island,	"

Business Committee.—Daniel Haines, of New Jersey; John Ludlow, of Pennsylvania; O. B Peirce, of Wisconsin; Henry Barnard, of Connecticut; William D. Swan, of Massachusetts.

The Journal of the Proceedings of these Conventions are printed—the former in a pamphlet of 40 pages, and the latter in a pamphlet of 175 pages.

Among the subjects presented in written papers, or discussed orally, were the following—"*The condition of Schools and Education in the several states;*" "*Organization and Supervision of Public Schools;*" "*School Architecture;*" "*School Attendance;*" "*Grades of Schools;*" "*Course of Instruction for each Grade of School;*" "*Teachers,—their qualifications, examination and compensation;*" "*Normal School Teachers Institutes and Associations;*" "*Mode of supporting schools—public fund, property tax, and tuition by parents;*" "*Parental and Public Interest in Schools;*" "*Girard College;*" "*Smithsonian Institution;*" "*Evening Schools;*" "*Moral and Religious Instruction;*" "*Methods of Instruction;*" "*Phonetics;*" "*Instruction and Training;*" "*Plan of a National Organization of the friends of Education.*"

The following Constitution drawn up by Bishop Potter, was adopted at the Session of 1851, and the Association was organized by the election of officers in conformity to its provisions.

CONSTITUTION OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION.

CONSTITUTION.—This Society shall be known by the name and title of the *American Association for the advancement of Education.*

OBJECTS.—The object of the Association shall be to promote intercourse among those who are actively engaged in promoting Education throughout the United States—to secure the co-operation of individuals, Associations and Legislatures, in measures calculated to improve Education, and to give to such measures a more systematic direction, and a more powerful impulse.

MEMBERS.—1. (*a*) All persons enrolled as members of either of the National Conventions, held in the City of Philadelphia, in the years 1849 and 1850, shall be entitled to become members of this Association on subscribing to the Constitution, and on paying an admission fee of $2.

(*b*.) Also, in like manner and on the same conditions, all delegates from Colleges or Universities, Incoporated Academies. Normal and High Schools, from State, County, or other Associations, established to promote education, provided that no more than three delegates shall be received from one Association at the same time.

2. All other persons who shall have been nominated by the Standing Committee, and elected by a majority of the members present, may become members in like manner, and on the same conditions.

NOTE. Those belonging to the above named classes shall be eligible to all offices of the Society.

3. Distinguished Educators and Friends of Education in other countries, may be elected Corresponding Members by a vote of two-thirds of the members present.

4. *Associates for the Year.*—Any person recommended by the Standing Committee shall on paying the sum of one dollar, be admitted as a member for the year, but shall not be eligible to any office.

5. *Life Members.*—Persons entitled of right to be members, or elected as prescribed by the Constitution, may constitute themselves *Life Members*, by paying at any one time the sum of twenty-five dollars, and subscribing to the Constitution and rules. They shall be eligible to all offices, and shall be entitled to receive all the published transactions of the Society, free of charge.

PAYMENTS.—1. Regular members paying one additional dollar, annually, shall be entitled to receive the transactions in like manner, free of charge.

2. The omission to pay, for one year, shall forfeit the privilege to receive the transactions free of charge, and the omission to pay for two successive years, shall forfeit membership. Membership may be resumed, however, by resuming payment—but not the privilege to receive the transactions as aforesaid.

MEETINGS.—There shall be an Annual Meeting on the Third* Tuesday in August, to continue for a period of not less than four days. The place* shall be designated at the preceding annual meeting, and the arrangements shall be made by the Standing and Local Committees.

OFFICERS.—They shall consist of a President, Recording Secretary, Corresponding Secretary and Curator, and Treasurer, to be appointed at the close of each annual meeting,† and to hold, with the exception hereafter noticed, their places for one year.

STANDING COMMITTEE.—This Committee shall consist of the Officers for the current and of those for the preceding year, with six other persons to be elected by ballot, who must also have been present at the meetings of the current or preceding year.

It shall be the duty of the Standing Committee to manage the general business of the Association in the intervals between the annual meetings, and it may also sit during said annual meetings. It shall nominate all persons who are to be ballotted for as members, and shall recommend suitable candidates to fill the offices of President, Secretary, Corresponding Secretary, and Treasurer, and Local Committee for the ensuing year.

LOCAL COMMITTEE.—This shall consist of persons residing in the place where the next annual meeting shall be held. It shall be their duty to co-operate with the officers in making arrangements for such meeting.

SECTIONS.—The Convention may, at pleasure, through its Standing Committee, resolve itself into *Sections*, the number and designation of said sections to vary, from time to time, as may be found expedient.

Each Section shall meet by itself, and shall elect its own Chairman and Secretary, who shall be *ex officio* members of the Standing Committee, and shall remain in office for one year.

It may also have a Standing Committee of its own: it shall discuss such subjects only as are indicated by the title of the Section—may receive communications—recommend subjects to be investigated and reported on, &c.

ARCHIVES.—There shall also be in Philadelphia, a permanent place for the reception of Documents, Reports, and other papers belonging to the Association, which shall be under the care of an officer who shall be elected for the term of five years, and be entitled Corresponding Secretary and Curator.

GENERAL MEETINGS.—These shall be held on three evenings during the annual session of the Association, to discuss such subjects, or hear such reports and communications as the Standing Committee may designate.

At one of these general meetings reports in brief shall be made by the Chairman of the several Sections of the proceedings therein.

ORGANIZING ANNUAL MEETING.—It shall be organized by the President of the preceding year.

The first business in order, shall be the delivery of his address. The new President having taken his seat, the Association shall then proceed to discuss the number and title of the Sections, if any, into which the Standing Committee snall distribute the members, and to designate the places for their meeting. The Sections shall then proceed to organize.

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* The time and place of the annual meeting are to be determined at the preceding annual meeting.

† Annually, by amendment of 1851, instead of "at the close of each annual meeting."

An Auditing Committee shall be appointed at the opening of each annual meeting, to examine and report on the state of the Treasury.

Alterations.—No article of this Constitution shall be altered except by a vote of three-fourths of the members present, and without one day's previous notice.

1851.

The First Session of the Association was held at Cleveland, Ohio, on the 19th, 20th, 21st and 22d of August, 1851, with the following Officers:

Rt. Rev. ALONZO POTTER, of Philadelphia, Penn., *President.*
D. P. Lee, of Buffalo, N. Y., *Recording Secretary.*
P. Pemberton Morris, of Philadelphia, Penn., *Corresponding Secretary.*
Edward C. Biddle, of Philadelphia, Penn., *Treasurer.*

Standing Committee.—Henry Barnard, of Connecticut; H. H. Barney, of Cincinnati, Ohio; T. H. Benton, Jr., of Iowa City, Iowa; Joseph McKeen, of New York City; Greer B. Duncan, of New Orleans, La.; R. E. Rogers, of Charlotteville, Va.

Papers were read, or addresses made by Samuel W. Bates, of Boston, on "*The Influence of the Spirit of the Age upon Education;*" by Pres. Mahan, of Cleveland, on "*The Old and New Systems of Collegiate Education;*" by Prof. Agnew, of the University of Michigan, on "*Woman's Offices and Influence;*" by Mr. McCormick, of Cincinnati, on "*Free Lectures;*" by Prof. Read, of the State University of Indiana, on "*School Libraries.*"

The discussions of these and other topics, were participated in by Bishop Potter, Dr. Manly, of the University of Alabama, Hon. Samuel Galloway, Rev. Dr. Anderson, of Miami University, Hon. J. R. Giddings, Dr. Waldo, L. Andrews, and A. D. Lord, of Ohio, Rev. Dr. Duffield, and Ira Mayhew, of Michigan, Hon. I. B. Sutherland, N. Nathans, Mr. G. M. Wharton, C. Gillingham, of Philadelphia, Prof. S. S. Greene, and Amos Perry, of Providence, G. F. Thayer, and W. D. Swan, of Mass., E. C. Pomeroy, and J. Johonnot, O. B. Pierce, of New York, R. L. Cooke, of New Jersey, W. S. Baker, and Henry Barnard, of Connecticut.

The Proceedings and Journal are printed in a pamphlet of 146 pages.

1852.

The Second Session of the Association was held at Newark, New Jersey, on the 10th, 11th, 12th, and 13th of August, with the following Officers:

Rt. Rev. ALONZO POTTER, of Philadelphia, Penn., *President.*
Robert L. Cooke, of Bloomfield, N. J., *Recording Secretary.*
P. P. Morris, of Philadelphia, Penn., *Corresponding Secretary.*
Daniel L. Beideman, of Philadelphia, Penn., *Treasurer.*

Standing Committee.—Gideon F. Thayer, of Boston, Mass.; Henry Barnard, of Hartford, Conn.; Lorin Andrews, Massillon, Ohio; Elisha R. Potter, Kingston, R. I.; J. W. Bulkley, Williamsburg, N. Y.; Joseph Cowperthwait, Philadelphia, Penn.

Beside the Introductory Address by the retiring President, Bishop Potter, Papers were read, or Lectures delivered, by Rev. Mr. Washburn, of Philadelphia, on "*History in its relation to Civilization;*" by Hon. Thomas H. Burrowes, of Lancaster, Penn., on "*Educational

Periodicals;" by S. Chase, of Trenton, N. J., on "*School Discipline;*" by Asa D. Lord, Principal of High School. Columbus, Ohio, on "*The Relations of Education to the Industrial Interests of Society;*" by William D. Swan, Principal of Grammar School in Boston, on "*School Attendance;*" by Dr. J. H. Griscom, of New York City, on "*Physiology;*" by Prof. S. S. Haldiman, of Columbia, Penn., on "*Etymology;*" by Prof. Upson, on "*The English Language;*" by R. S. Cooke, Principal of Female Seminary in Bloomfield, N. J., on "*Female Education;*" by P. P. Morris, of Philadelphia, on "*Schools of Design for Females;*" by Prof. Whitaker, of Boston, on "*Drawing;*" by G. B. Emerson, of Boston, on "*The true function of Text Books;*" by Joshua Bates, Jr. of Boston, on "*Arnold as a Model Teacher;*" and by Rev. Dr. Sears, of Massachusetts, on "*The cultivation of Taste and Imagination.*"

The subjects thus presented, and topics suggested by these subjects, were discussed by a large number of members.

The Journal and Proceedings of this meeting, are published in a pamphlet of 102 pages.

1853.

The Third Session of the Association, was held at Pittsburg, Penn., on the 9 h, 10th, 11th and 12th of August, 1853. The Officers for the year consisted of

JOSEPH HENRY, Washington, D. C., *President.*
Robert L. Cooke, of Bloomfield, N. J., *Recording Secretary.*
P. P. Morris, of Philadelphia, *Corresponding Secretary.*
John Whitehead, of Newark, N. J., *Treasurer.*

Standing Committee.—Asa D. Lord, of Columbus, Ohio; Wm. M. Gillespie, Schenectady, N Y.; E. C. Biddle, Philadelphia, Penn.; Wm. D. Swan, Boston; Wm. Travis, New Castle, Penn.; Caleb Mills, Crawfordville, Ind.

Papers were read and addresses made by the retiring President, Bishop Potter, Prof. Wilson, and C. Wentworth Dilke, of England, the former, on "*The Agricultural College of Chichester;*" and the latter, on "*The School of Arts in London;*" Rev. D. Adamson, on "*The languages of Southern Africa,*" and on "*Museums of Natural Science;*" by Prof. Haldiman, on "*The Natural Sciences as a branch of Education;*" by Mr. James B. Richards, on "*The Education of imbecile Children;*" by Prof. Joseph Henry, on "*The Objects of the Smithsonian Institution;*" by Hon. Thomas H. Burrowes, on "*The Office, Nature. and School Culture of the English Language;*" by Hon. Erastus C. Benedict, "*On Common or Public Schools;*" and on "*Night Schools in the City of New York;*" by Prof. Agnew, on "*The Systematic Education of Girls;*" by Rev. Daniel Washburn, on "*Grades of Schools.*"

In the discussion of these, and kindred topics, a large number of members from every part of the country took part.

The Journal and Proceedings of this meeting are published in a pamphlet of 130 pages.

1854.

The Fourth Session of the Association was held at Washington, on the 26th, 27th, 28th and 29th of December, 1854, with the following Officers:

ALEXANDER DALLAS BACHE, of Washington, D. C., *President.*
Robert L. Cooke, of Bloomfield, N. J., *Recording Secretary.*
P. Pemberton Morris, of Philadelphia, Penn., *Corresponding Secretary.*
John Whitehead, of Newark, N. J., *Treasurer.*

Standing Committee.—Rt. Rev. Alonzo Potter, of Philadelphia, Penn.; Erastus C. Benedict, of New York City; Thomas H. Burrowes, of Lancaster, Penn.; Lorin Andrews, of Massillon, Ohio; Alfred Ryors, of Bloomington, Ind.; Zalmon Richards, of Washington, D. C.

Addresses were made, or Papers read, by the retiring President, Prof. Henry, on "*The Philosophy of Education;*" by David Cole, of Trenton, N. J., on "*Classical Education;*" by John S. Hart, of the Philadelphia High School, on "*The Study of the Anglo-Saxon Language;*" and on "*The new building erected for the Central High School of Philadelphia;*" by Hon. Henry Barnard, on "*The Educational Exhibition of London, and the Recent Educational Movements of Great Britain;*" and on a "*Plan of Central Agency;*" by Z. Richards, of Washington, on "*Moral and Mental Discipline;*" by Rev. Samuel M. Hamill, of New Jersey, on "*School Government;*" and by W. P. Ross, on "*The State of Education among the Cherokees.*"

In the discussion of the topics presented, or suggested by these papers and addresses, Bishop Potter, Dr. Proudfit, of Rutgers College, Rev. Dr. Stanton, of Mississippi, Prof. Dimitry, of New Orleans, Prof. Loomis, Solomon Jenner, and Alfred Greenleaf, of New York; R. L. Cooke, and Mr. Whitehead, of New Jersey, Prof. Bache, G. J. Abbott, and Dr. T. Atlee. of Washington, took part.

1855.

The Fifth Session of the Association, will be held in the City of New York, in the Chapel of the University, on the 28th, 29th, 30th, and 31st of August, with the following Officers:

HENRY BARNARD, of Hartford, Conn., *President.*
P. Pemberton Morris, of Philadelphia, Penn., *Corresponding Secretary*
Robert L. Cooke, of Bloomfield, N. J., *Recording Secretary.*
John Whitehead, of Newark, N. J., *Treasurer.*

Standing Committee.—John Proudfit, of New Brunswick, N. J.; Erastus C. Benedict, of New York; Joseph McKeen, of New York; Zalmon Richards, of Washington, D. C.; John D. Philbrick, of New Britain, Conn.; Elisha R. Potter, of Kingston, R. I.

Local Committee,

Rev. Dr. Ferris, *University of New York,*
Hon. Chas. King, *Pres. Columbia College.*
H. Webster, LL. D., *Free Academy,*
Prof. E. Loomis, *University of New York,*
Rev. G. D. Abbott, *Spingler Institute N. Y.,*
Peter Cooper, Esq., *New York,*
Hon. S. S. Randall, *Sup't. Public Schools,*
Hon. J. McKeen, *Ass't. Sup't. Pub. Schools,*
J. N. McElligot, LL. D.,
A Gilbert, Esq., *Clerk of Board Education,*
J W. Bulkley, *Sup. Pub. Sch. Williamsburg,*
Alfred Greenleaf, *Brooklyn,*
Hon. Cyrus Smith, *Brooklyn,*
Solomon Jenner, *New York.*

JOURNAL OF THE FOURTH SESSION

OF THE

AMERICAN ASSOCIATION

FOR THE

ADVANCEMENT OF EDUCATION.

The American Association for the advancement of education convened at the Smithsonian Institution, in the city of Washington, December 26th, 1854, and was called to order by the retiring president, Prof. Joseph Henry.

The sessions of the Association were opened with prayer, by the Rev. Dr. Proudfit, of New Jersey.

The minutes of the last meeting were read and approved.

Prof. Henry stated that on account of the prevalence of the cholera, the standing committee took the responsibility of altering the time of the annual meeting of the Association, for the present year, from the first Tuesday of August to the last Tuesday of December.

Bishop Potter moved the appointment of a committee on credentials, and a committee to audit the accounts of the treasurer.

The chair appointed, on the auditing committee,

HON. H. BARNARD, *of Conn.*,
Z. RICHARDS, *of Washington.*

On the committee on credentials,

ALFRED GREENLEAF, *of Brooklyn*,
SOLOMON JENNER, *of New York.*

The organization of the Association having been completed, the retiring president, with a few appropriate remarks, introduced the president elect, Prof. A. D. Bache, to the Association. Prof. Bache addressed the Association, on taking the chair.

Communications were received from the President of the United States, and W. W. Corcoran, Esq., inviting the members of the Association to visit them at some time during its sessions. The invitations were accepted, and the thanks of the Association tendered to these gentlemen for their courtesy.

On motion of Z. Richards; Resolved, That the hours of meeting each day be as follows: the first session from 10 A. M. to 3 P. M, and the evening session from 6½ to 9 P. M.

Prof. Henry submitted a communication from Mr. A. S. Colton, of Maryland, which was read, and referred to the standing committee.

On motion of Mr. J. Whitehead, Mr. Alfred Greenleaf was appointed an assistant secretary.

Hon. H. Barnard, of Conn. introduced the subject of appointing a general agent,* to devote his whole time and energies to the advancement of the purposes of the Association, and after remarks by Prof. Proudfit, Mr. Greenleaf, and Bishop Potter, on motion of Mr. Whitehead, a committee was raised, to consider and report upon the subject under discussion during the present session.

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* See Appendix IX.

The chair appointed on this committee,

Hon. H. Barnard, *of Conn.*,
Rt. Rev. Bishop Potter, *of Penn.*,
Prof. Joseph Henry, *of Washington*,
John Whitehead, *of New Jersey.*

The standing committee proposed the names of the following gentlemen, for permanent membership.

Rev. R. L. Stanton, D. D., *Washington*,
Jared Reid, Jr., *Newport, R. I.*,
David Cole, *Trenton, N. J.*,
Rev. John Proudfit, D. D., *New Brunswick, N. J.*,
Prof. Elias Loomis, *New York city.*

The committee also proposed the following gentlemen as associate members.

O. C. Wight, *Washington*,
J. M. Watson, *New York*,
Alexander Dimitry, *Louisiana.*

Prof. Bache having invited the association to visit the office of the United States Coast Survey,* on motion of S. M. Hamill; Resolved, That the thanks of the Association be presented to Prof. Bache, for his kind invitation, and that the Association accept it, at such hour as he may name.

The hour of half-past one having been named by Prof. Bache, on motion of R. L. Cooke, it was Resolved, That the rules be suspended, in order to accept of the invitation of Prof. Bache, and that we now adjourn until the evening session.†

EVENING SESSION.

The meeting was called to order by the president at 7 o'clock.

The gentlemen nominated in the morning session were unanimously elected members of the Association.

The Association was then addressed by Prof. Loomis, of the University of the city of New York, on the heavenly bodies occupying the space between the planets Mars and Jupiter.

After the address, Bishop Potter, from the committee appointed at the morning session, reported the following resolution as the result of their deliberations.

Resolved, That the standing committee be instructed to consider, with power to act, whether some means can not be devised, by the appointment of a general agent, or otherwise, to give greater efficiency to the operations of this Association, and, more especially, to secure to it and te the world, the results of the inquiries some time since instituted by a member of this Association, at the instance of one department of the general government, in regard to the present state and past history† of education in the United States.

The resolution was unanimously adopted.

Mr. Whitehead, from the standing committee, reported an order of exercises for the second day's session, as follows:

1st. Discussion of the subject of classical education.

2d. A paper by Prof. J. S. Hart, of Philadelphia, on the connection of the English language with the Teutonic, and other Indo-European languages.

3d. During the evening, Prof. Hart's description of the high school recently erected in the city of Philadelphia.

Association adjourned.

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* See Appendix V. † See Appendix IX. B.

SECOND DAY. DECEMBER 27.

The Association met at 10 o'clock; the president in the chair.

The session was opened with prayer by the Rt. Rev. Bishop Potter.

The standing committee proposed the following gentlemen as permanent members.

PROF. JAMES NOONEY, *San Francisco*,
J. SIDNEY SWIFT, *Springplace, Ga.*,

As associate members:

R. W. BUSHNELL, *Washington*,
J. E. THOMPSON, *Washington*.

On recommendation of the standing committee, Wm. P. Ross and Judge John Thom, of the Cherokee Nation, were elected corresponding members of the Association.

Bishop Potter gave notice of an intention to offer an amendment to the constitution, in reference to the time for the annual meetings of the Association.

The Association proceeded to a consideration of the order of the day,—the discussion* of the subject of classical education. The discussion was opened by the reading of a paper† by David Cole, of New Jersey. At the close of Mr. Cole's remarks, the hour for the presentation of Prof. Hart's paper having arrived, on motion of Mr. Whitehead, the order of exercises was suspended for half an hour, to enable the members to express their views upon the subject under discussion.

Remarks were made by Alfred Greenleaf, S. Jenner, Bishop Potter, and Z. Richards, until the hour appropriated for the discussion had expired, when, on motion of Bishop Potter, the further discussion of the subject of classical education was postponed to 6½ o'clock P. M.

Prof. Hart read a paper‡ on the connection of the English language with the Teutonic, and other Indo-European languages.

On motion of Mr. Hamill; Resolved, That the papers read by Mr. Cole and Prof. Hart be requested from their authors, for publication, under the direction of the standing committee.

The adoption of the resolution was preceded by remarks‖ from Bishop Potter, Mr. Dimitry, Prof. Proudfit, Prof. Hart, Mr. Hamill, Mr. Whitehead, Prof. Bache, Mr. Barnard, Prof. Henry, Dr. Stanton and A. Greenleaf.

The hour of 3 o'clock having arrived, the Association adjourned.

EVENING SESSION.

The meeting was called to order by the president at 6½ o'clock.

The gentlemen proposed for membership, at the morning session, were unanimously elected.

The standing committee proposed as a permanent member:

SILAS L. LOOMIS, *Washington*.

And as associate members:

SAMUEL KELLEY, *Washington*,
A. F. HARVEY, *Washington*.

The resumption of the discussion of the subject of classical education having been announced as the order of exercises for the first hour, remarks were made by Mr. Richards, Bishop Potter, Mr. Cole and Prof. Proudfit. The hour for the presentation of Prof. Hart's report upon the Philadelphia high school having arrived, on motion, the further discussion of the subject was postponed until to-morrow morning.

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* See Appendix III. b. † See Appendix III. ‡ See Appendix II. ‖ See Appendix II. b.

Prof. Hart then entered into a detailed account of the construction of the high school recently erected in the city of Philadelphia, with numerous illustrations drawn on a large scale by pupils of the school.* The reading the paper was followed by† remarks from Prof. Bache, Dr. Lainbut, Mr. Cooke, Mr. Barnard, and others.

A vote of thanks was tendered to Prof. Hart for his address.

Association adjourned.

THIRD DAY. DECEMBER 28.

The Association met at 10 o'clock, and, in the absence of the president, was called to order by Bishop Potter, upon whose motion Prof. Proudfit took the chair.

The minutes of the last day's sessions were read and approved.

The gentlemen nominated by the standing committee were elected members of the Association.

Mr. Whitehead, of New Jersey, moved that the city of New York be designated as the next place of meeting of the Association.

On motion of Bishop Potter, the resolution was laid upon the table for the present, in order to take up previously the amendment of the constitution, proposed during the second day's session. It was then Resolved ; That the article of the constitution which designates the second Tuesday of August as the time for the annual meeting of the Association, be so amended as to leave the time for each annual meeting to be determined at its discretion, at the preceding meeting.

Mr. Whitehead's resolution was taken up, and after considerable discussion was passed, designating the city of New York as the place for holding the next annual meeting, at the request of the Standing Committee.

Hon. H. Barnard, of Connecticut, addressed the Association, giving an account of the Educational Exhibition held in London, in 1854, under the auspices of the Society of Arts, and the recent educational movements of Great Britain, generally.

On motion of R. L. Cooke ; Resolved, That the thanks of the Association be tendered to Mr. Barnard for his address, and that he be requested to prepare an abstract of his remarks, to be published in the proceedings of the Association.

On motion of Bishop Potter ; Resolved, That the standing committee be instructed to consider, and report specifically at the next annual meeting, upon the important suggestions made by Dr. Barnard, in his report of his late educational tour in Great Britain, respecting the expediency of establishing, in connection with the Association, a national museum or depository for books, globes, charts, models, &c. of school apparatus—also, a national educational journal—also, a system of educational exchanges—also, a plan for a series of educational tracts, adapted for circulation throughout the United States—and the employment by the Association of a permanent agent.

The Association took a recess of 10 minutes.

At the expiration of the recess, the standing committee reported, as a permanent member, the name of

PROF. W. L. BROWN, *Athens*, *Ga.*,

and as associate member,

PROF. JOSEPH J. WHITE, *of Lexington*, *Va.*

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* See Appendix IV. † See Appendix IV. b.

Bishop Potter, from the standing committee reported the names of the following gentlemen as officers of the Association for the ensuing year.

President, Hon. H. Barnard, *of Conn.*,
Corresponding Secretary, P. P. Morris, *of Penn.*,
Recording Secretary, R. L. Cooke, *of New Jersey*,
Treasurer, John Whitehead, *of New Jersey.*
Standing Committee, John Proudfit, *New Brunswick, N. J.*,
" E. C. Benedict, *New York city*,
" Joseph McKeen, *New York city*,
" Zalmon Richards, *Washington city*,
" J. D. Philbrick, *New Britain, Conn.*,
" E. R. Potter, *Kingston, R. I.*

The gentlemen nominated by the standing committee were unanimously elected.

After considerable discussion, it was Resolved; That the next annual meeting commence on the last Tuesday, 28th of August, 1855, at 10 o'clock A. M.

On motion; Resolved, That, as contingencies may arise which will render it expedient to alter, either the time or the place of the next annual meeting, the standing committee be empowered to make such alteration.

The Association adjourned.

EVENING SESSION.

The Association was called to order by the president.

The gentlemen nominated during the morning session were elected members.

The standing committee nominated as a permanent member:

George J. Abbott, *of Washington city*,

and as an associate member:

R. T. Taylor, *of Washington city.*

A communication from the Young Men's Christian Association was read, inviting the members of the Association to visit their library and reading-room. The invitation was accepted, and thanks tendered to the Young Men's Association for the courtesy extended.

Mr. Barnard, from the auditing committee, reported that they had examined the accounts and vouchers of the treasurer, and found them correct. The balance remaining in the treasury is $59.62.

At the request of the Association, Mr. Barnard continued his remarks in reference to recent educational movements in Great Britain, especially as to Reformatory Schools, Schools of Industry, Government Schools of Practical Science, &c.

Prof. Joseph Henry, as the retiring president, delivered the annual address before the Association, on the philosophy of education.†

On motion of Dr. Barnard, remarks on the topics suggested by the address of Prof. Henry were made the order of the day for to-morrow morning at 10 o'clock.

Mr. Cole, of New Jersey, offered the following resolution: Resolved, That this Association regards the acquisition of the Latin and Greek languages as necessary to thorough, accurate, and comprehensive scholarship, and would sincerely deprecate the abandonment of classical studies in the academies, high schools and colleges of the United States.

Bishop Potter offered the following resolution as a substitute for the above, which was adopted by Mr. Cole.

Resolved; That, regarding the Latin and Greek languages as most valuable instruments of a high culture, this Association would earnestly deprecate the exclusion or discouragement of classical studies in the academies, high schools and colleges of the United States.

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† See Appendix I

After remarks by Mr. Richards, Bishop Potter, Dr. Stanton, Mr. Barnard, Dr. Proudfit, Mr. Hamill, Prof. Bache and Dr. Lambert, the resolution was passed, unanimously.

Association adjourned.

FOURTH DAY. DECEMBER 29.

The Association was called to order by the president, and its session was opened with prayer by the Rev. Mr. Dashiell.

The minutes of the last day's sessions were read and approved.

The gentlemen nominated last evening were elected members.

The standing committee nominated as a permanent member:

S. Y. Atlee, *of Washington city.*

Bishop Potter, from the standing committee, reported the names of the following gentlemen as a local committee:

Rev. Dr. Isaac Ferris, *University of New York*,
Hon. Chas. King, *President Columbia College*,
H. Webster, LL. D., *Free Academy*,
Prof. E. Loomis, *University of New York*,
Rev. G. D. Abbott, *New York*,
Peter Cooper, Esq., *New York*,
Hon. S. S. Randall, *Superintendent Public Schools*,
Hon. Joseph McKeen, *Ass't. Sup't. Public Schools*,
J. N. McElligott, LL. D.,
Albert Gilbert, Esq., *Clerk Board of Education.*
J. W. Buckley, *Sup't. Pub. Schools*, *Williamsburg*,
Alfred Greenleaf, *Brooklyn*,
Hon. Cyrus Smith, *Brooklyn*,
Solomon Jenner, *New York.*

Remarks upon the address of the retiring president were announced as the order of the day.

Remarks were made by Mr. Barnard, Dr. Lambert, Prof. Henry, Bishop Potter, Dr. Proudfit, Prof. Bache, Mr. Hamill and Mr. Wight.

On motion of Prof. Proudfit, the thanks of the Association were tendered to Prof. Henry for his address.

The president called Prof. Proudfit to the chair.

A paper on mental and moral discipline was read by Z. Richards, of Washington City.*

The Association took a recess of five minutes.

At the close of the recess, the president resumed the chair, and the nominees of the morning were elected members of the Association.

On motion of John Whitehead, Mr. John Ross, of the Cherokee Nation, was elected a corresponding member of the Association.

Mr. Wm. P. Ross made some interesting statements in regard to the state of education among the Cherokees.†

Dr. Stanton offered the following resolution:

Resolved, That the standing committee, to whom was yesterday referred the several subjects suggested by the address of Dr. Barnard, on the state of education in Europe, with instructions to report at the next annual meeting, be, and they are hereby fully authorized to carry out any or all the objects contemplated in reference of the subject to the committee, as soon as, in their judgment, the requisite funds and the proper person or persons can be obtained for the work.

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* See Appendix VI. † See Appendix VIII.

The resolution was adopted.

The following is an outline of the "Plan for 'the increase and diffusion of knowledge,' of education, and especially of popular education, and measures for its improvement through the Smithsonian Institution, or the American Association for the Advancement of Education," prepared by Mr. Barnard.

The Institution [or Association] to appoint a secretary or agent; with a salary, and to furnish a room for an office and depository of educational documents and apparatus.

Agenda by the secretary or agent:

1. To devote himself exclusively to the "increase and diffusion of knowledge" on the subject of education, and especially of the condition and means of improving popular education, and particularly

2. To answer all personal or written inquiries on the subject, and collect and make available for use, information as to all advances made in the theory and practice of education in any one state or country.

3. To attend, as far as may be consistent with other requisitions on his time, and without charge to the funds of the Institution, [or Association] Educational Conventions of a national and state character, for the purpose of collecting and disseminating information.

4. To edit a publication, to be entitled the American Journal and Library of Education, on the plan set forth in the accompanying paper.*

5. To collect

(*a*) Plans and models of school-houses and furniture.

(*b*) Specimens of maps and other material aids of education.

(*c*) Educational reports and documents from other states and countries.

6. To institute a system of educational exchange between literary institutions in this and other countries.

7. To make arrangements, and effect, if practicable, at least one meeting or conference of the friends of educational improvement in Washington [or elsewhere] every year.

8. To submit annually a report in which shall be given a summary of the progress of education, in each state, and as far as practicable, in every country.

On motion of S. Y. Atlee; it was Resolved, That a select committee be appointed to consider the expediency of rendering the study of constitutional law one of the rudimental exercises in public schools; said committee to report thereon to the Association, at its next annual meeting.

The president appointed Mr. Atlee on this committee.

On motion of Bishop Potter; Resolved, That the following subjects be referred by the president, at his earliest convenience, to committees or individuals as he may elect, to be reported upon at the next annual meeting.

1st. The uses and best methods of classical instruction.

2d. Moral education in schools.

3d. The relations of the schools and the family.

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* See Appendix IX. A.

4th. Family training.

5th. Relations of common schools and colleges.

6th. What improvements could be introduced into our college systems, considered, (1st,) as to their interior arrangements, and (2d,) as to the relations of the several colleges with each other?

7th. A university proper—national or otherwise.

8th. What features of the university systems of different countries of Europe can be advantageously transferred to this country?

On motion; Resolved, That this Association has seen with much satisfaction the recommendation of the Secretary of the Interior, in his late report to the President of the United States, to devote a portion of the public property within the city of Washington exclusively to the purposes of education therein; and also the efforts made in Congress for the passage of bills to appropriate portions of the public domain, or the proceeds thereof, to the establishment and support of public schools in all the states; and it entertains the strongest convictions that the interests of popular education will be greatly advanced by the establishment, in connection with one of the departments of government, a depository for the collection and exchange of works on education, and the various instrumentalities of instruction.

On motion of Bishop Potter; Resolved, That the standing committee be requested to prepare a programme of exercises for the next annual meeting, and publish the same as widely, and at as early a day as possible.*

Mr. S. M. Hamill, of New Jersey, read a paper on discipline.†

On motion; Resolved, That the papers read by Messrs. Richards and Hamill be requested for publication, under the direction of the standing committee, and that the discussions growing out of them be deferred to the next annual meeting.

On motion of Mr. Whitehead; Resolved, That the thanks of the Association be tendered to the regents and Secretary of the Smithsonian Institution for the gratuitous use of their rooms, and to the various officers of the Institution for their attendance upon the Association during its session. Prof. Henry responded to the resolution in behalf of the Smithsonian Institution.

On motion of R. L. Cooke; Resolved, That the thanks of the Association be tendered to Prof. Bache for the interest that he has manifested in the objects of the Association, and for the able manner in which he has presided over its deliberations.

The president having appropriately responded to the foregoing resolution, and alluded to the pleasure he enjoyed in looking back to his experience as a teacher, declared the Association adjourned, to meet in the city of New York, on the last Tuesday in August, 1855.

R. L. COOKE, SECRETARY.

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* See Appendix X. † See Appendix VII.

I. INTRODUCTORY DISCOURSE

THOUGHTS ON EDUCATION.

BY JOSEPH HENRY, LL. D.

No subject of human thought has perhaps received more attention than that of education. Every one has the material for speculating in regard to it in his own experience; but individual experience is too limited a basis on which to found a general theory of instruction, and besides this, paradoxical as it may appear, an individual is perhaps less able to judge correctly of the effects of the course of instruction to which he has been subjected than another person. No one can tell what he would have been under a different course of training, and the very process which he condemns may perhaps have been the one best suited to develope the peculiarities of mind which have led to his success in life; and indeed in some very rare instances the want of all training of a systematic kind may be the best condition under Providence for producing an entirely original character. Shakespeare's genius might have been shackled by the scholastic curriculum of Oxford or Cambridge; but these cases are extremely rare, for genius itself, like the blossoms of the aloe is the solitary production of a century.

I bring forward my own views on education with diffidence. First, because I have read scarcely any thing on the subject, and what I shall say may be considered common-place; secondly, because my views may in some respects be at variance with what are regarded as the established principles of the day. But important truths cannot be too often presented, and when re-produced by different minds under different circumstances they can scarcely fail to awaken new trains of thought and renewed attention; and again, if the propositions which I maintain are erroneous, I desire that they may be discussed and disproved before they are given more widely to the public. What I shall advance may be viewed as suggestions for consideration rather than propositions adequately proved.

In the establishment of a principle it is of the first importance that all probable suggestions relative to it may be subjected to critical examination, and tried by the test, as far as possible, of experience; it is in this way that science is advanced.

The first remark which may be made in regard to education is, that it is a forced condition of mind or body. As a general rule it is produced by coercion; at the expense of labor, on the part of the educator, and of toil and effort on the part of the instructed. That there is no royal road to learning, is an aphorism as true now as it was in the days when first uttered. God has placed a price on that which is valuable, and those who would possess a treasure must earn it at the expense of labor. Intellectual as well as material wealth can only be purchased at the price of toil. It is true the child may be induced to learn his task by the prospect of reward; by emulation; by an appeal to his affections; but all these, in some cases, are ineffectual, and recourse must be had to the stimulus of the rod. I do not by this remark intend to advocate a general recourse to corporeal coercion. It should be used sparingly, perhaps only in extreme cases, and for the purpose of eradicating a vicious habit. The philosophy of its use in this case is clear. We associate pain with the commission of an improper act and thus prevent its recurrence.

I have said, that education is a forced condition of mind or body. The child, if left to itself, would receive no proper development, though he might be surrounded with influences which would materially affect his condition. The savage never educates himself mentally, and were all the educational establishments of the present day abolished, how rapidly would our boasted civilization relapse into barbarism.

Another important fact is, that every generation must educate and give character to the one which follows it, and that the true progress of the world in intelligence and morality consists in the gradual improvement of the several generations as they succeed each other. That great advance has been made in this way, no one can doubt who views the facts of history with an unprejudiced mind; but still the improvement has not been continuous. There have been various centres and periods of civilization. Egypt, Greece, and Rome, though they have left an impress upon the world which extends even to our time, and modifies all the present, have themselves "mouldered down." It appears, therefore, that civilization itself may be considered as a condition of unstable equilibrium, which requires constant effort to be sustained, and a still greater effort to be advanced. It is not, in my view, the manifest destiny of humanity to improve by the operation of an inevitable necessary law of progress; but while I believe that it is the design of Providence that man should be improved, this improvement must be the result of individual effort, or of the combined effort of many individuals, animated by the same feeling, and co-operating for the attainment of the same end. The world is still in a degraded condition; ignorance, want, rapine, murder, superstition, fraud, uncleanness, inhumanity, and malignity abound. We thank God, however, that he has given us the promise, and in some cases, the foretaste, of a happier and holier condition, that he has vouchsafed to us as individuals, each in his own sphere, the privilege, and has enjoined upon us the duty of becoming his instruments, and thus co-workers, in ameliorating the condition of ourselves, and our fellow men; and above all, that he has enabled us through education to improve the generations which are to follow us. If we sow judiciously in the present, the world will assuredly reap a beneficent harvest in the future; and he has not lived in vain, who leaves behind him as his successor a child better educated morally, intellectually, and physically than himself. From this point of view the responsibilities of life are immense. Every individual by his example and precept, whether intentionally or otherwise, does aid or oppose this important work, and leaves an impress of character upon the succeeding age, which is to mould its destiny for weal or woe in all coming time.

Civilization itself, as I have before observed, is a state of unstable equilibrium which if not supported by the exertions of individuals, resembles an edifice with a circumscribed base, which becomes the more tottering as we expand its lateral dimensions, and increase its height. Modern civilization is founded on a knowledge and application of the moral, intellectual, and physical laws by which Divine wisdom governs the universe. The laws of morality have been revealed to us, but they require constant enforcement and habitual observance. The laws of the intellectual and material universe have been discovered by profound study and years of incessant labor, and unless they are taught in purity, and freed from error, they fail to produce their legitimate result. But the illustration and enforcement of the laws of morality require the exertions of men of high talents and profound learning; and a true knowledge of the laws of nature can only be imparted by minds that have long been devoted to their study. Therefore a large number of highly educated men whose voice may be heard, and whose influence may be felt, is absolutely necessary to sustain the world in its present moral and intellectual development. The world, however, is not to be advanced by the mere application of truths already known; but we look forward, particularly in physical science, to the effect of the development of new principles. We have scarcely as yet read more than the title page and preface of the great volume of nature, and what we do know is nothing in comparison with that which may be yet unfolded and applied; but to *discover* new truths requires a still higher order of individual talent. In order that civilization should continue to advance, it therefore becomes necessary that special provision should be made for the *actual increase* of knowledge, as well as for its diffusion; and that support should be afforded, rewards given, and honors conferred on those who *really add* to the sum of human knowledge.

This truth however is not generally appreciated, and the tendency is to look merely at the immediate results of the application of science to art, and to liberally reward and honor those who simply apply known facts, rather than those who *discover* new principles.

From what we have said it would appear that in order that civilization should remain stationary, it is absolutely necessary that the great truths which have been established should not become diluted, obscured, or forgotten; that their place should not be usurped by error, or in other words that the great principles of science, which have been established through long years of toil and nights of vigilance, should not be superseded by petty conceits, by hasty and partial generalizations, and by vague speculations or empirical rules. Farther, that civilization should not retrograde, it is indispensably necessary that the great truths of morality should not only be theoretically taught and intellectually apprehended, but actively, constantly, and habitually applied. But this state of things can only exist by means of the efforts of individuals actuated by a generous, liberal, and enlightened philanthropy. Unfortunately, however, the tendency of civilization, from the increase of wealth, and security, is to relax individual effort. Man is naturally an indolent being, and unless actuated by strong inducements or educated by coercion to habits of industry, his tendency is to supineness and inaction. In a rude state of society an individual is dependent upon his own exertions for the protection of himself, his family, and his property; but as civilization advances personal effort is less required, and he relies more and more on law and executive government. Moreover, as wealth and elementary education become more general without a corresponding increase of higher instruction, the voice of the profound teacher becomes less and less audible; his precepts and admonitions less and less regarded; he is himself obliged to comply with popular prejudices and conform to public opinion, however hastily formed or capricious such an opinion may be. Hence the tendency to court popular favor, to be influenced by it, rather than attempt to direct it. Hence charlatanism and the various dishonest attempts to gain notoriety rather than a true reputation, so frequently observed. Knowledge has arrived at such a stage of advancement that a division of labor in regard to it is necessary. No one can be learned in all the branches of human thought; and the reputation of an individual therefore ought to rest on the appreciation of his character by the few, comparatively, who have cultivated the same field with himself. But these are not generally the dispensers of favor, and consequently he who aspires to wealth or influence seeks not their approbation; but the commendation and applause of the multitude. It is impossible that those who are actively engaged in the business of life should have time for profound thought. They must receive their knowledge, as it were, at second-hand; but they are not content under our present system of education with the position of students, they naturally aspire to that of teachers; and every one who has learned the rudiments of literature or science becomes ambitious of authorship, and a candidate for popular applause. Knowledge in this way becomes less and less profound in proportion to its diffusion. In such a condition of things it is possible that the directing power of an age may become less and less intelligent as it becomes more authoritative, and that the world may be actually declining in what constitutes real, moral, and intellectual greatness, while to the superficial observer it appears to be in a state of rapid advance. I do not affirm that this is the case at present. I am merely pointing out tendencies.

The present is emphatically a reading age; but who will venture to say that it is proportionately a *thinking* age? The sum of positive knowledge is embraced in but few books, and small would be the library necessary to contain the essence of all that is known. We read too much and too quickly to read understandingly.— The world is gorged with intellectual food, and healthful digestion is comparatively unknown. Too many books are published; I do not mean to say that too many *standard works* are printed, but by far too many silly, superficial and bad books are sent forth from the teeming press of our day. The public mind is distracted amidst a multiplicity of teachers and asks in vain for TRUTH. But few persons can devote themselves so exclusively to abstract science as fully to master its higher generalizations, and it is only such persons who are properly qualified to prepare the necessary books for the instruction of the many. I cannot for a moment subscribe to the opinion which is sometimes advanced that superficial men are best calculated to prepare popular works on any branch of knowledge. It is true that some persons have apparently the art of simplifying scientific principles; but in the great majority of cases this simplification consists in omitting all that is difficult of comprehension. There is no task more responsible than that of the preparation of an elementary book for the instruction of the community; and no one should embark in such an undertaking who is not prompted by a higher motive than a mere love of notoriety, or the more general incentive, a hope of commercial success. He should love the subject upon which he intends to write, and by years of study and habitual thought, have become familiar with its boundaries, and be enabled to separate the true and the good from that which is merely hypothetical and plausible.

In this connexion I may mention the evils which result from literature and science becoming objects of merchandize, and yet not amenable to the laws of trade. I allude to the international copyright system. The tendency of the present condition of copyright law between England and America is greatly to debase literature, to supply cheap books, and not to impart profound wisdom or sound morality. English books are republished in this country and American books are reprinted in England, because they are *cheap*, and not because they are GOOD. Literary and scientific labor must be properly remunerated, or the market will be supplied with an inferior article. The principles of free trade are frequently improperly applied to this question. The protection required and demanded by the literary man is not that of a premium on his work, but the simple price which it ought to bear in the market of the world. He asks that the literary product of the foreigner may be paid for in order that justice may be done his brother, and also that he himself may receive a proper remuneration for his own labors. Would there be any manufactories of cloth, think you, in this country, if the tailor had the means and inclination to procure free of cost all the material of the garments which he supplies to his customers? And can it be supposed that valuable literary works will be produced among us, so long as our publishers are allowed to appropriate, without remuneration, the labors of the foreigner? The want of an international copyright law has, I know, produced a very unfavorable effect upon higher education in this country. It has prevented the preparation of text-books better suited to the state of education among us than those which are re-published from abroad, and adopted in many of our institutions of learning.

Another result of the wide diffusion of elementary knowledge, without a proper cultivation of the higher intellectual faculties, and an inculcation of generous and unselfish principles, is the inordinate desire for wealth. To acquire power and notoriety in this way requires the least possible amount of talents and intelligence, and yet success in this line is applauded even if obtained by a rigid application of the dishonest maxim that "*all is fair in trade.*" We have a notable example of this fact in the autobiography of an individual who glories in his shame, and unblushingly describes the means by which he has defrauded the public. No one who has been called upon to disburse public money can have failed to be astonished at the loose morality on the part of those who present claims for liquidation. The old proverb here is very generally applied, namely, "the public is a goose, and he is a fool who does not pluck a feather!" A full treasury, instead of being considered a desirable or healthy state of the nation, should be regarded as the precursor of a diseased condition of the public morals. That the tendencies which I have mentioned do to a greater or less extent exist, and that they require the serious consideration of the enlightened statesman, and the liberal minded and judicious friend of education, must be evident to every one who seriously and without prejudice observes the habits of the times.

The proper appreciation of profound learning and abstract science is not as a general rule what it ought to be. The most authoritative teacher is the editor of a newspaper. Whatever may have been his previous training, or however circumscribed his field of thought, he is the umpire to decide upon all questions even of the most abstract science or the most refined casuistry.

The question may be asked with solicitude—Are the tendencies we have mentioned inevitable? Are there no means of counteracting them? And is our civilization to share the fate of that of Egypt, Greece, and Rome? Is humanity destined to a perpetual series of periodical oscillations of which the decline is in proportion to the elevation? We answer, No! Though there have been oscillations, and will be again, they are like those which constitute the rising flood-tide of the ocean, although separated by depressions, each is higher than the one which preceded it. Something may have been *lost* at intervals; but on the whole more has been and will be *gained*. But how is this to be effected? The man of science and literature, the educator, and the christian teacher, together with the enlightened editor, must combine their efforts in a common cause, and through the influence of the press, the school, the college, and the pulpit send forth a potential voice which shall be heard above the general clamor.

Common school or elementary education is the basis on which the superstructure of the plan of true progress should be established; but it must be viewed in its connection with a general system, and not occupy exclusively the attention and patronage of governments, societies, and individuals; liberal means must also be provided for imparting the most profound instruction in science, literature and art.

In organizing new states and territories, the amplest provision ought to be made for all grades of education; and if possible, every individual should have the opportunity offered him of as much mental culture as he is capable of receiving or desirous of acquiring. Notwithstanding comparatively few may have the industry and perseverance necessary to the highest attainment, it is also of the first importance, that modes of instruction be examined and thoroughly discussed, in order that what is valuable in the past should be retained, and what is really an improvement in the present, be judiciously and generally applied.

Having presented some general suggestions in regard to the bearing of education, and the efforts of individuals on the progress of humanity, I now propose to offer for consideration a few observations on the theory of the process of instruction.

It may seem strange that the theory of an art so long practised as that of education should not be definitely settled; but strange as it may appear, the fact is certain, that few writers fully agree as to what is the true plan and process of education. No art can be perfect unless it rests upon a definite conception of fundamental principles, or in other words, unless its theory be well established upon a general law of nature. The laws which govern the growth and operations of the human mind are as definite, and as general in their application, as those which apply to the material universe; and it is evident that a true system of education must be based upon a knowledge and application of these laws. Unfortunately, however, psychologists have not classified and exhibited them in a form sufficiently definite to render their application easy, and the directors of education have too often considered merely the immediate practical result which might follow a particular course of training, rather than that which would be conducive to the highest development of the individual. In this condition of the theory of education, I have myself ventured to speculate upon the subject, and though I may have nothing new of value to offer, it is my duty at this time to make such suggestions as may furnish topics of discussion, or serve to illustrate established truths.

The theory which I would present for your consideration, and critical examination, and which appears to me to be in accordance with the results of experience, may be briefly expressed as follows:

The several faculties of the human mind are not simultaneously developed, and in educating an individual we ought to follow the order of nature, and to adapt the instruction to the age and mental stature of the pupil. If we reverse this order, and attempt to cultivate faculties which are not sufficiently matured, while we neglect to cultivate those which are, we do the child an irreparable injury. Memory, imitation, imagination, and the faculty of forming mental habits, exist in early life, while the judgment and the reasoning powers are of slower growth. It is a fact abundantly proved by observation that the mere child, by the principle which has been denominated *sympathetic imitation*, may acquire the power of expressing his desires and emotions in correct, and even beautiful language without knowing, or being able to comprehend, the simplest principles of philology. He even seizes, as if by a kind of instinct, upon abstract terms, and applies them with ease and correctness. But as life advances the facility of verbal acquisition declines, and with some it entirely disappears. Hence the plan appears to me to be wise, and in accordance with nature, which makes the acquisition of language an essential part of early elemental education. The same child which acquires almost without effort his vernacular tongue may by a similar process be taught to speak the principal ancient and modern languages. He may also acquire the art of the accountant, and be taught by proper drilling to add long columns of figures with rapidity and correctness, without being able to comprehend the simplest abstract principles of number and magnitude. Moreover, it is well known that the memory may be stored at a very early age with valuable rules and precepts, which in future life may become the materials of reflection, and the guiding principles of action; that it may be furnished with heroic sentiments and poetic illustrations, with "thoughts which breathe and words that burn," and which long after, will spontaneously spring up from the depths of the mind, at the proper moment, to embellish and to enforce the truths of the future author, statesman, or divine.

But the period of life, when acquisitions of this kind are most readily made, is not that in which the judgment and reasoning powers can be most profitably cultivated. They require a more advanced age, when the mind has become more matured by natural growth, and better furnished with the materials of thought.

Mental education consists in the cultivation of two classes of faculties, viz., the intellectual and the moral.

Intellectual instruction, of which we shall first speak, should have at least three objects :—

1. To impart facility in performing various mental operations.

2. To cultivate the imagination, and store the memory with facts and precepts: and

3. To impart the art of thinking, of generalization, of induction and deduction.

The most important part of elementary mental instruction, and that which I have placed first in the foregoing classification, is that of imparting expertness in the performance of certain processes which may be denominated mental arts. Among these arts are spelling, reading, penmanship, drawing, composition, expertness in the first rules of arithmetic, and in the use of different languages. These can only be imparted by laborious drilling on the part of the teacher, and by acquired industry and attention on the part of the pupil. The practice in each case must be so long continued, and the process so often repeated, that it becomes a mental habit, and is at length performed with accuracy and rapidity almost without thought. It is only in early life, while the mind is in a pliable condition, that these mental facilities can most readily and most perfectly be acquired, while the higher principles of science, on which these arts depend, can only be thoroughly understood by a mind more fully matured. Expertness in the performance of an art does not depend on a knowledge of its principles, and can be readily acquired without reference to them. The most expert accountants are frequently, and perhaps generally, those who have no knowledge of the philosophy of figures. On the other hand, a profound acquaintance with the principles of an art may exist without the ability to apply it in practice. I have known of mathematicians who were unable to perform with accuracy and dispatch the processes which constitute the application of the simple rules of multiplication and addition. The same is the case with the art of composition. A most learned rhetorician is not necessarily a fluent and pleasing writer.

The acquisition, therefore, of these arts should be the principal and prominent object of the primary or common school, and nothing ought to be suffered to usurp their place. Unfortunately, the drilling which is at first required to induce the mental habit is so laborious and tedious to the teacher, and in most cases so irksome and distasteful to the pupil, that there is a tendency, and I am sorry to say in our schools a growing one, to neglect them, and to substitute other objects of more apparent, but of less intrinsic value.

This is not only an irreparable injury to the individual, but also to the public. All the practical operations of life in which these processes are concerned,—and they apply to all except those of mere handicraft skill—are badly performed. I may venture to say that the general substitution of instruction in the mere *rationale* of the rules of arithmetic, without a proper drilling in the practice, would produce more bankruptcies than all the changes of tariffs or fluctuations of trade.

It is an important principle, which should be kept in view by the teacher, that although the practice of an art is at first difficult, and requires at each step an effort of mind, yet every repetition renders it easier, and at length we come to exercise it not only without effort, but as a pleasurable gratification of an habitual act. Perseverance therefore in this cause will ultimately receive a grateful reward. It should be impressed upon the minds of the directors of elementary education that the teacher who neglects to train his pupils to expertness in these processes, or who merely does enough in this way to awaken a distaste, and who fails to overcome this condition of mind by subsequent judicious drilling, is unworthy of his high vocation, and should give place to a more industrious or more philosophical instructor.

All the processes we have enumerated, besides various manipulations and bodily exercises necessary to health, refinement and convenience, may be taught previous to the age of ten or twelve years. At the same time the memory may be educated to habits of retention and precision; and, for this purpose definite, and if possible elegantly expressed rules should be chosen, to be committed without the slightest deviation, and so impressed upon the memory that they will ever after remain a portion of the mental furniture of the man, always ready to be called up when needed, and always to be depended upon for accuracy. The mere understanding of the rule, and the power of being able to express it in a vague and indefinite way in original language is, in my judgment, not of itself sufficient. The memory is an important faculty of the mind, and is susceptible of almost indefinite cultivation. It should, however, in all cases be subservient to the judgment.

Habits of observation may also be early cultivated, and a boy at the age of twelve years may be taught to recognize and refer to its proper class almost every object which surrounds him in nature; and indeed the whole range of descriptive natural history may be imparted previous to this age.

Nothing, in my opinion, can be more preposterous or mischievous than the proposition so frequently advanced, that the child should be taught nothing but what it can fully comprehend, and the endeavor in accordance with this to invert the order of nature, and attempt to impart those things which cannot be taught at an early age, and to neglect those which at this period of life the mind is well adapted to receive. By this mode we may indeed produce remarkably intelligent children who will become remarkably feeble men.

The order of nature is that of art before science, the entire concrete first; and the entire abstract last. These two extremes should run gradually into each other, the course of instruction becoming more and more logical as the pupil advances in years.

Thus far we have principally considered only the education of the habits and the memory, and it is particularly to these that the old system of drilling is peculiarly applicable. I know that this custom has, to a considerable degree, fallen into disuse, and the new and less laborious system of early precocious developement, been substituted in its stead. In this respect the art of instruction among us has retrograded rather than advanced, and "Young America" though a very sprightly boy may fail to become a very profound man!

I would not, however, by the foregoing remarks have it inferred, that the reasoning faculties of the child should not receive due attention, and that clear conceptions of the principle of every process taught should be elucidated and explained, as far as he is able to understand them; but that the *habits* and the *memory* should be the main objects of attention during the early years of the pupils' course. The error of the old system consisted in continuing the drilling period too long, and in not shading it off gradually into that of the logical, or what might be called the period of the acquisition and use of general principles.

The last part of mental education as given in our classification is that which relates to the cultivation of the judgment and the reasoning powers. These faculties of the mind, as we have repeatedly said, are latest in arriving at maturity, and indeed, they may be strengthened continually and improved progressively through a long life, provided they have been properly directed and instructed in youth and early manhood.

They should be exercised in the study of mathematical analysis and synthesis; in deducing particular facts in a logical form from general principles; and instructed in the process of discovering new truths. The cultivation of the imagination should also be considered an essential part of a liberal education, and this may be spread over the whole course of instruction, for like the reasoning faculties the imagination may continue to be improved until late in life.

From the foregoing remarks it will be evident that I consider the great object of intellectual education to be, not only to teach the pupil how to *think*, but how to *act* and to *do*, and I place great stress upon the early education of the *habits*. And this kind of training may be extended beyond the mental processes to the moral principles; the pupil may be taught on all occasions habitually and promptly, almost without thought, to act properly in any case that may occur, and this in the practical duties of life is of the highest importance. We are frequently required to act from the impulse of the moment, and have no time to deduce our course from the moral principles of the act. An individual can be educated to a strict regard for truth, to deeds of courage in rescuing others from danger, to acts of benevolence, of generosity and justice; or though his mind may be well stored with moral precepts, he may be allowed to fall into opposite habits alike prejudicial to himself, and to those with whom he is associated. He may "know the right, and yet the wrong pursue."

Man is the creature of habit; it is to him more than second nature; but unfortunately, while bad habits are acquired with readiness, on account of the natural desire to gratify our passions and appetites, good habits can only be acquired by unremitting watchfulness and labor. The combined habits of individuals form the *habits of a nation*, and these can only be moulded, as I have before said, by the coercive labor of the instructor judiciously applied.

The necessity of early and judicious moral training is often referred to, but its importance is scarcely sufficiently appreciated. The future character of a child, and that of the man also, is in most cases formed, probably, before the age of seven years. Previously to this time impressions have been made which shall survive amid all the vicissitudes of life—amid all the influences to which the individual may be subjected, and which will outcrop, as it were, in the last stage of his earthly existence, when the additions to his character, made in later years, have been entirely swept away. In connection with this point, I may mention one idea which has occurred to me, and which I have never seen advanced; but which, if true, invests the subject of early impressions with a fearful interest. The science of statistics shows that certain crimes which are common in the seasons of youth disappear, comparatively, with advancing age, and re-appear again toward the close of life; or in other words, that the tendencies to indulgences in disorders of imagination, and habits which were acquired in the early life of a vicious youth, or one exposed to evil associations, though they may be masked and kept in subjection by the judgment, and the influences of position and reputation during early manhood, middle life, and first decline, resume their sway, and close the career of the man who has perhaps for years sustained a spotless reputation, with ignominy and shame. How frequently do cases of this kind present themselves? I have now in my mind's eye an individual who for forty years was known and esteemed as a model of honor, purity and integrity, but who at the age of seventy committed a crime which consigned his name to infamy. Depend upon it, this man was subjected to evil influences in early life, and the impressions then made, though neutralized by the conditions and circumstances which afterwards surrounded him, were never effaced, and when the latter ceased to produce their restraining effects, the former resumed their original sway. Pursuing this train of thought we would conclude that the child is not merely the father of the man, but more emphatically, the father of the *old* man; that the term second childhood has a more extended signification than that of the mere decline of the faculties. It also should convey the idea that the tendency of the dispositions and propensities of individuals is to return to the condition of earlier life. This principle is important also in a historical point of view. The aged, though they may forget the occurrences of middle and after life, recall with vivid distinctness the impressions of childhood, and thus the grandfather with senile garrulity, transmits the history of his early times, as it were, across an intervening generation to his grandson. This again makes an indelible impression upon the plastic mind of his youthful auditor, to be alike transmitted to *his* children of the third generation. Abundant examples might be adduced to illustrate the proposition of the vivid recurrence of the effects of early impressions apparently effaced. Persons who have for long years been accustomed to speak a foreign language, and who have forgotten the use of any other, have frequently been observed to utter their dying prayers in their mother tongue.

In this country, so far as I have observed, the course of education is defective in two extremes: it is defective in not imparting the mental habits or facilities which can most easily be acquired in early life, and it is equally defective in the other extreme, in not instructing the student, at the proper period, in processes of logical thought, or deductions from general principles. While elementary schools profess to teach almost the whole circle of knowledge, and neglect to impart those essential processes of mental art of which we have before spoken, our higher institutions, with some exceptions, fail to impart knowledge, except that which is of a superficial character. The value of facts, rather than of general principles, is inculcated. The one, however, is almost a consequence of the other. If proper seeds are not sown, a valuable harvest cannot be reaped.

The organization of a system of public education in accordance with my views would be that of a series of graded schools beginning with the one in which the mere rudiments of knowledge are taught, and ending with that in which the highest laws of mind and matter are unfolded and applied. Every pupil should have the opportunity of passing step by step through the whole series, and honors and rewards should be bestowed upon those who graduated in the highest school. Few, however, as I have said before, would be found to possess the requisite talent and perseverance necessary to finish a complete course. But at whatever period the pupil may abandon his studies, he should be found fitted for some definite pursuit or position in life, and be possessed of the moral training necessary to render him a valuable citizen and a good man.

These are some of the subjects which I commend for discussion at the present meeting of the association. The great aim should be to enforce the importance of thorough early training and subsequent high education. It should be our object to bring more into repute profound learning, and to counteract the tendency to the exclusive diffusion of popular and mere superficial knowledge. We should endeavor to enlarge the pyramid of knowledge by symmetrical increments, by elevating the apex, and expanding the base always observing the conditions of stable equilibrium.

I. b. REMARKS ON INTRODUCTORY DISCOURSE.

THE Introductory Address by the retiring President was followed by a very able discussion occupying over three hours, in which Mr. Barnard, Bishop Potter, Prof. Bache, Dr. Lambert, Dr. Scranton, Dr. Proudfit, Mr. Greenleaf, and Prof. Henry took part. The main propositions laid down by Prof. Henry were generally sustained, with certain modifications and qualifications insisted on by each speaker. The position that education was a forced condition of mind and body, was controverted, and the growth of various faculties, under appropriate influences and teaching, was, it was claimed by many, as natural as the growth of a plant or a tree—each in its own way, and after laws impressed by the Creator of all things. It was admitted by all that there must be labor, and a process of appropriation, selection, and assimilation on the part of the child, to make even good teaching and favorable conditions and influences rightly available, but that mind and body would be educated for better, or worse, in the case of every child endowed with an ordinary human organization and faculties, and living in society.

The importance of early and judicious moral training was enforced, and illustrated by most interesting examples within the personal knowledge of different speakers. The great idea, that the results of vicious training, and evil associations in early life, especially if connected with a vivid imagination, although kept in subjection by the judgment and the influences of position and reputation during early manhood, will almost inevitably resume their sway in later life, and then make shipwreck of character and happiness—was held up as a fact of terrible significance to parents, teachers, and young people. Without questioning the theological doctrine of repentance, or the efficacy of forgiveness of sins committed, the educational doctrine that the boy is 'father of the man,' for time and eternity was ably argued.

It is to be regretted that the reporter was absent at the time, or omitted to furnish the secretary with his notes of this profound, interesting, and practically valuable discussion. Should it be found that notes were taken, and may be yet written out, the discussion may hereafter be published.

II. ON THE STUDY OF THE ANGLO-SAXON LANGUAGE;

OR, THE RELATIONS OF THE ENGLISH LANGUAGE TO THE TEUTONIC AND CLASSIC BRANCHES OF THE INDO-EUROPEAN FAMILY OF LANGUAGES.

BY JOHN S. HART, LL. D., PRINCIPAL OF THE PHILADELPHIA HIGH SCHOOL.

Before proceeding to the main object of this paper, it may be proper to explain, briefly, what is meant by the term Indo-European, as applied to Languages, and how the classification originated, which this term expresses.

The British East India Company, in the government of their Indian Empire, have always had in their employ a number of eminent jurists, to act as judges in the civil administration. These judges early found that the jurisprudence which they were called upon to administer, was interwoven with a vast body of national traditions, and that to interpret these traditions rightly, it would be necessary to become acquainted with the original language in which they were contained. The nations of India in this respect, were found to be very much in the condition of the nations of Southern Europe, that survived the disintegration of the Roman Empire. As France, Spain, and Italy, look to ancient Rome for the basis both of their several languages and of their systems of jurisprudence, so in modern India many nations were found with languages distinct but closely affiliated, and having a common basis in a tongue which ceased to be spoken about two thousand years ago. This dead language, existing among them as the Latin does among the nations of Southern Europe, is known by the name of the Sanscrit, the languages of modern India, which are its descendants, being called Pracrit.

The jurists of the British East India Company found, that in order to acquire the necessary authority as interpreters of Indian Law, they must learn the Sanscrit language, and they began to apply themselves to the study about three quarters of a century ago. As the results of their studies were communicated from time to time to the learned of western Europe, it gradually became apparent that they were likely to have an important bearing upon some of the general principles of philological science. A most surprising coincidence, for instance, was found between this ancient language, at the foot of the Himmalayas, which had been a dead language for more than two thousand years, and the Latin of western Europe. This coincidence included not only a vast number of words, meaning the same thing in both languages, but most striking similarities in syntax, conjugations, and declensions. Forms in the Latin verbs which had become anomalous and unexplainable, even before the time of Cicero, were found to be explained by the corresponding forms of the Sanscrit, where they existed in a state less impaired or more fully developed.

Sir William Jones, and after him others in the same line of inquiry, found similar affinities between the Zend or ancient Persian and the English.

Such results as these, led to a careful re-examination of the whole theory of the affiliation of languages. It would not comport with the object of this paper, to enter into a history of the investigations and discussions which followed, nor to state all the discrepancies of opinion which still exist among philologists, as to the general distribution and classification of the languages of the earth. The discussions have led, however, to some well ascertained results, in regard to which the learned are pretty much agreed. All the leading languages from the Himmalaya mountains in Asia on the east, to the Atlantic shore of Europe on the west, are found to have certain affinities and points of resemblance too strong to be accounted for in any other way than by supposing an historical and ethnical connection. The ethnographical theory, by which these extraordinary analogies are explained, will be given very briefly. It will be understood to be the merest outline.

The nations embraced in the immense space of longitude that has been named, are supposed to have all sprung originally from some central hive in Asia, (the precise location of which, it is not necessary to the theory either to establish or assume,) and to have proceeded thence in very early times, in successive swarms, to the countries where they are found within the historic periods. These tides of population are supposed to have followed each other at intervals of many centuries, and to have proceeded, as migratory nomads usually do, in the direction of their original impulse, until the impulse was spent, or met with some obstacle sufficient to arrest its further progress. The earliest wave of population rolling westwardly would necessarily be arrested by the Atlantic, and would eventually become stationary in the countries along that coast and in the adjacent islands. The next succeeding wave in the same direction would be obliged to pause on reaching the range of countries occupied by its predecessor. The earliest easterly wave seems to have been arrested by the formidable obstacle presented by the Himmalaya mountains, and to have settled at its feet among the plains of Hindostan. So on, with the several emigrations, east and west, and more or less remote, until we imagine the whole area occupied between our two extreme points.

Taking this general idea, which is admitted to be in the main purely theoretical, we find the following distinct groups of languages, marked off by well-defined characters, and by well-known and indisputable facts.

I. *The Sanscrit.* This, as already explained, is the ancient language of India. It has the same relation to the modern or Prakrit languages of India, that the Latin has to the Italian, French, and other Romanic tongues.

II. *The Zend or old Persian.* This also is a dead language, containing the ancient sacred books of the race, the Zendavesta, and having its living representatives in the modern Persian, the Pehlevi, the Deri, &c. The races speaking languages derived from the Old Persian or Zend, are supposed to have left the parent hive at a date posterior to those of India.

III. *The Celtic.* The tribes found by the Romans in Gaul, Spain, Britain, Ireland, and the smaller islands along the Atlantic coast, had certain remarkable points of coincidence, showing them all to belong to the same race. A similar coincidence is found in their languages. Of these, there is no original prototype extant. The modern representatives are the Welsh, (lineally descended from the old British,) the Cornish, the Erse or Irish, the Gaelic or Highland Scotch, the Manx (spoken on the isle of Man,) &c., the Armoric or language of Brittany on the coast of France, &c.

IV. *The Teutonic.* This includes two branches, which are indeed sometimes ranked as two distinct groups, viz. the Germanic and the Scandinavian. The Scandinavian includes the tribes north of the Baltic, and is represented by the Danish, the Swedish, the Norwegian, and the Icelandic. The Germanic, includes all the tribes in central Europe south of the Baltic, and is represented by the German or High Dutch, the Hollandish or Low Dutch, and the English, with their various dialects. Of the English and the Low Dutch, the early type is the Anglo-Saxon, which has ceased to be a spoken language, but exists in many ancient writings, some of which are of a classical character. Of the German, the original type is the venerable Gothic, a memorable specimen of which we have in the Gospels of Ulphilas. By some writers, indeed, the Gothic is supposed to be the original, not only of the Germanic, but of the Scandinavian tongues. The Teutonic tribes, it is supposed, entered Europe north of the Euxine, and in the course of their wanderings westerly, became gradually separated into two streams, part verging north to and beyond the Baltic, forming the Scandinavian nations, and part going more centrally, pressing upon the Romans on the south, and upon the Celtic nations on the west. With this part of the Teutonic wave of population, known chiefly as Germans, we are made familiar by Cæsar, Tacitus, and other Roman writers.

V. *The Classic.* About the same time that the Teutonic wave entered Europe north of the Euxine, another wave is supposed to have entered south of these waters, following the coast of the Mediterranean, and laying the foundations of nations known afterwards as Greeks and Romans. This group of languages, therefore, is the Greek and Latin, and their modern representatives throughout southern Europe.

VI. *The Slavonic.* The last of the great waves of population, in point of time, is that which is found in the north-eastern part of Europe and the conterminous regions of Asia, pressing westwardly upon the Germanic and the Scandinavian peoples, and southwardly upon the Greco-Roman. The languages of this group are very numerous. Those best known are the Russian, the Polish, and the Lettic.

The six groups of languages that have been described form one family, which has received the name of the *Indo-European*, and sometimes of the *Japhetic*. Besides this family, there is another, not so large, but equally well defined and peculiar, viz: the *Shemitic*. The Shemitic family consists of only three groups, viz: 1, the Aramaean (including the Chaldee and the Syriac); 2, the Hebrew; and 3, the Arabic, (including its cognate the Ethiopic).

This classification is good, so far as it goes, because it is based upon clearly ascertained affinities. At the same time, it is to be remembered, the generalization is far from complete. It makes no place for the Chinese, for the languages of central Africa, the original languages of America, and the languages of the numerous islands of the Pacific. This is no reason, however, why we should not recognize the classification, so far as it does go, and derive from it the advantages which it affords in elucidating the history and resources of our own language. The English bears most intimate relations to two of the groups of the great Indo-European family, viz: the Teutonic and the Classic. Nine-tenths, probably, of its words are derived from one or the other of these sources. At the same time, there are numerous words that can not be claimed as being exclusively German or Latin, but are common to both sources. Some, indeed, are found running through all the six groups of the Indo-European or Japhetic family, showing that they existed before the great dispersion. A few are found even common to both the Indo-European and the Shemitic families, bearing in this fact a history that carries us back to the ark itself.

It would be impossible, in a paper of the present description, to give the induction of particulars that are proper in the way of illustration even, much less of proof, of these generalizations. A very few familiar examples, however, may be quoted.

First, I will give some examples of words which run through the whole family.

THREE.

1. San; *tri.*
2. Zend; *thri.*
3. Celt; Ers. *tri*, Welsh, *tri.*
4. Teut; Go. *thri*, Ger. *drei*, Sax. *threo*, *thri*, Sw. and Dan. *tre* Eng. *three.*
5. Clas; Lat. *tres*, *tria*, Gr. τρεις. Fr. *trois*, It. *tres*, Sp. *tre.*
6. Slav; Rus. *tri*, Lat. *tri.*

SEVEN.

1. San; *saptan.*
2. Zend; *haptan*, Pers. *heft.*
3. Celt; Welsh *saith.*
4. Teut; Go. *sibun*, Ger. *sieben*, Sax. *seofen*, Eng. *seven*, Du. *zeeven* Da. *syv.*
5. Clas; Gr. ἑπτα, Lat. *septem*, Fr. *sept*, It. *sette*, Sp. *siete.*
6. Slav; Rus. *sem*, Lat. *septyni*

FATHER.

1. Sans; *pitri.*
2. Zend; *paitar*, Pe. *pader.*
3. Celt; Ers. *athair* (the initial consonant elided).
4. Teut; Go. *vatar*, Ge. *vater*, Dut. *fader*, Sax. *faeder*, Eng. *father*, Da. Sw. *fader.*
5. Clas; Gr. πατηρ, Lat. *pater*, It. and Sp. *padre*, Fr. *père.*
6. Slav; Rus. *batia.* (?)

MOTHER.

1. Sans; *matri.*
2. Zend; Pers. *mader.*
3. Celt; Ers. *mathair.*
4. Teut; Ger. *mutter*, Sax. *moder*, Eng. *mother*, Du. *moeder*, Sw. and Da. *moder.*
5. Clas; Gr. μητηρ, Lat. *mater*, It. Sp. and Port. *madre*, Fr. *mêre.*
6. Slav; Russ. *mat.*

TO BEAR.

1. Sans; *bri*, *bhar-adi.*
2. Zend; *bairan*, Per. *ber.*
3. Celt; Ers. *bear-adh.*
4. Teut; Go. *bair-an*, Ge. *fëhren*, Du. *beuren*, Sax. *baeran*, Eng. *bear*, Sw. *bära*, Dan. *bære.*
5. Clas; Gr. φερω φορεω, βαρος (a burden, a thing borne) βαρυς, Lat. *fero*, *pario*, *porto*, It. *portare*, Sp. *portar*, Fr. *porter.*
6. Slav; Russ. *beru.*

Some words, it is to be observed, not only run through the entire Indo-European or Japhetic group, but likewise appear in the Shemitic. Thus the numeral "seven," already quoted, is evidently connected with the *sheba* of the Hebrew, Chaldee, Syriac, and Ethiopic, and the *sabata* of the Arabic. In like manner "bear" seems to have an etymological connexion with the Hebrew *parah*, which means to "bear," and perhaps with the Heb. *bara*, meaning "to create," "to produce," "to bring forth," (comp. English *bairn*, that which is born or brought forth).

This word "bear," both in its generic meaning of *bearing a burden*, and its specific meaning of *bringing forth* (as of animals, trees, earth, &c.,) is, probably, more widely diffused than any other word to be found. There is no word of which we would feel it safer to guess that it was used by Noah himself, and that it is verily older than the flood. Let us look at a few of its forms in the English alone.

In English, we have it both as a Teutonic word, coming directly from the Sax. *baeran*, and as a Latin word, in its three several forms of *fero*, *pario*, and *porto.*

First, let us enumerate some of the forms of Teutonic origin.

Bear, bearing, bearer, bearable, bearably; forbear, forbearing, forbearingly, for-bearance; over-bear, over-bearing, over-bearingly; bore, over-bore, for-bore; borne, over-borne, for-borne; born, bairn, birth; burden, burdening, burdened, burdensome, burdensomely, burdensomeness; over-burden, over-burdening, overburdened, &c.

From the Latin *fero*, we have *Fer*tile (bearing freely, productive) fertility, fertilize, fertilizing, fertilizer; fertilizing, fertilized, fertilizer. *Fors* (forts) comes from *fero*, as the Greek φορτιον from φερω, τροπος from τρεπω, &c. *Fors*, *fortis* (whatever bears or brings itself along, *chance*) gives us fortune, fortuning, fortuned, fortunate, fortunately, fortuneless; unfortunate, unfortunately; misfortune; fortuitous, fortuitously, fortuity. *Fortis* (that which bears every thing before it, *strong*, *brave*) gives us forte; fort, fortlet, fortalice, fortress; fortitude, fortify, fortifying, fortified; force, forcing, forced, forcer, forceless, forceful, forcefully, forcible, forcibly; enforce, enforcing, enforced, enforcement; reinforce, reinforcing, reinforced, reinforcement. There is some connection, evidently, between *fero* to bear, and *ferry* to bear across a stream; here we have ferry, ferrying, ferried, ferriage, ferryman, &c. *Fer* as an adjective termination, in conjunction with *ous*, is compounded with many hundreds of Latin nouns, giving rise to such words as somni*fer*ous, nocti*fer*ous, odori*fer*ous, pesti*fer*ous, voci*fer*ous, &c., some of which again originate a new progeny, as vociferous, vociferously, vociferate, vociferating, vociferated, vociferation, &c., &c.

Fero, in composition with the Latin prepositions, gives a still more prolific progeny of words; as,

Circum-*fer*ence, circumferential, circumferentor.

Con-*fer*, conferring, conferred, conference, conferrer, conferee.

De-*fer*, deferring, deferred, deference, deferential, deferentially.

Dif-*fer*, differing, differed, different, indifferent, differently, indifferently, difference, indifference, differentiate, differentiating, differentiated.

In-*fer*, inferring, inferred, inferrible, inference, inferential, inferentially.

Of-*fer*, offering, offered, offerer, offertory.

Pre-*fer*, preferring, preferred, preferrer, preferment, preference, preferable, preferably, preferableness.

Prof-*fer*, proffering, proffered, profferer.

Re-*fer*, referring, referred, referee, referrible, reference.

Suf-*fer*, suffering, suffered, sufferer, sufferance, sufferable, sufferably, insufferably.

Trans-*fer*, transferring, transferred, transferrer, transferee, transference, transferrible, intransferrible.

The connexion between *par*, the stem of *pario*, to bring forth or bear, may not be obvious at first sight; but it is not more removed than *βαρος* from *φερω* in the Greek, which is generally admitted. As the identity of a stem depends upon its consonantal elements, the substitution of *p* for *f* is the only material change in passing from *fer* to the stem *par*, or *per* (pe-*per*-it, com-*per*-it, &c.,) and no etymological law is better established than the interchangeability of the labials p, b, f, and v. The same remark applies to *por*-to, to carry, to bear.

If these two words be admitted to belong to the family, we have, from *par*-io, parent, parentage, parental, parentally, parentless, parturient, parturition, and very numerous compounds, such as vivi*par*ous, ovi*par*ous, &c. From *port*o, to carry, we have port, porte, portico, porch, porter, portly, portal, portage, portliness, portable, portableness, besides the compounds portmanteau, portfolio, &c., &c.

Besides these, we have also the various prepositional compounds, com-port, de-port, ex-port, im-port, re-port, sup-port, trans-port, each of which gives birth to a numerous family, which need not be enumerated, as they are formed in the same manner as the derivations of confer, de-fer, &c., already given.

It is not necessary to pursue the illustration further. From a careful count, I suppose there are not less than four hundred and fifty words, in the English language alone, dependent upon this one stem, in no one of which is the meaning of the primary root entirely lost.

In treating of such a class of words, it would obviously be proper to say, first, that *fer*tile, con*fer*, de*fer*, somni*fer*ous, &c., are derived from the Latin fero; secondly, that bear, burden, borne, born, birth, &c., are derived from the Sax. baeran. But it is not proper to say that baeran and its derivatives come from fero, or that fero and its derivations come from baeran. The two (fero and baeran) are independent of each other, and yet they are mutually related. The generic stem, which pervades them all, is not strictly a Teutonic word, nor a Latin word, but an Indo-European word.

There is another important class of words that are found to pervade only some two or three of the groups of languages which have been named, having been lost in the others. It is not necessary to give illustrations of these. I will, however, pause a moment, to illustrate, by a few detached examples, a point which I think has not received sufficient attention, I mean a remarkable affinity between English words of undoubted Teutonic origin and stems of kindred meaning found in the Latin.

Lay (to place); Ger. *lec*gan, Lat. *lo*care, *lo*cus.

Acre; Sax. aecer, (field), Lat. ager, Gr. αγρος.

Time; Sax. tima, Lat. *tem*pus.

Thunder; Sax. thuner, Lat. *toni*tru.

Teach; Sax. tæcan, Lat. *doc*eo.

Sugar; Ger. zucker, Lat. *sacchar*um.

Stand; Sax. stand-an, Lat. stant-is.

Sign; Sax. segen, Lat. *sign*-um.

Night; Sax. niht, Lat. *noct*is, Gr. νυκτος.

Right; Sax. riht, Lat. *rect*-us.

Nose; Sax. naes, Lat. *nas*-us.

Tower; Sax. tor, Lat. *tur*-ris.

Murder; Sax. morth (death), Lat. *mort*-is.

Wine; Sax. win, Lat. *vin*-um, Gr. οιν-ος.

Wind; Sax. wind, Lat. *vent*-us, Eng. *went* (motion).

Whistle; Sax. hwistle, Lat. *fistul*-a.

Name; Sax. *nama*, Lat. *nom*-en.

Wail; Sax. weall, Lat. *val*-lum.

Wade; Sax. *wad*an, *wad* (ford), Lat. *vado*, *vad*um.

Short; Sax. *sceort*, Ger. kurz, Lat. *curt*-us.

Prove; Sax. *prof*-ian, Lat. *prob*-are

Pain; Sax. pin, Lat. *pœn*-a, Gr. πον-ος.

Over; Sax. ofer, ober, Gr. ὑπερ, Lat *super*.

Nephew; Sax. ge-*nef*-a, Lat. *nep*-os.

Tug; Sax. *teog*an, (to pull one after him, to lead him) Lat. *duc*-ere.

Yoke; Sax. geoc, Lat. *jug*-um.

Of; Sax. of, Lat. ab, Gr. *άπο*.

Now; S. nu, Gr. *νυν*, Lat. *nunc*.

This affinity may be traced very clearly even in those significant terminations, which are always counted as among the earliest and most primordial of the elements of language. Thus the Latin termination *ity*, signifying quality or state of being, has its correlative in consonantal structure, as well as in meaning, in the Saxon *th*.

SAXON.	LATIN.
Weal,—wealth.	Sanus,—sanity.
Steal,—stealth.	Rarus,—rarity.
Heal,—health.	Vanus,—vanity.
Deep,—depth.	Probus,—probity.
Long,—length.	Brevis,—brevity.
Strong,—strength.	Felix,—felicity.
Wide,—width.	Rotundus,—rotundity.

This *th* of the Teutonic, and *ity* of the classical group, may, indeed, have a still more distant relative in the familiar Shemitic termination *ith* or *oth*.

But to drop the subject of terminations, and to turn to the consideration of word-stems, it is possible that some of those just cited may have been borrowed into the Saxon from the Latin by the early Saxon ecclesiastics. In regard to most of these words, however, such a theory is impossible, as they are found in use in Saxon poems that date back long prior to the conversion of the Saxons to Christianity. The poem of Beowulf, from which I have taken a considerable part of them, is commonly supposed to have been composed before the Saxons left the Continent for England, and consequently several centuries before they had any historical connection with the Latins.

Here, then, is the curious and remarkable fact, that a very large, class of words is to be found in the Anglo-Saxon and the Latin, so nearly alike in meaning and in their consonantal elements, as to compel the belief of their identity; and yet these words existed in their respective languages long ages before the races which speak them had any known historical connexion. The number of words of this kind, I have reason to suppose, is much larger than has been generally recognized, certainly larger than is to be found in any work on the subject which has fallen under my observation.

The historical relations of the English to the Teutonic and classical groups of languages, bring us out of the region of speculative and original research, and place us in connexion with topics known and read of all men. What I have further to say, therefore, will be merely a grouping of some of the well-known facts of history, with inferences of a practical kind in reference to the best mode of cultivating our noble tongue.

According to the theory already sketched, the first of the great waves of population that rolled westward from central Asia, was the Celtic race. At what particular time this great emigration took place, we know not. We only know that it was many centuries before the Christian era. The Celts, or Kelts, appear to have been originally nomadic in their character, and to have journeyed westerly, or perhaps to have been driven westerly by the Teutons or some succeeding race, through central Europe, until their farther progress was arrested by the Atlantic Ocean. We find remains of this race all along the Atlantic coast of Europe, though they were chiefly congregated in Spain, Gaul, and Britain, and the adjacent islands.

The Latin race, under the Romans, shortly before the Christian era, extended their dominion northward from Italy, until they had subdued nearly all the countries occupied by the Celtic race. In Spain and in France (or Gaul), this Roman dominion was so complete, that those countries became integral parts of the Roman empire. Not only Roman laws and customs were introduced, but a Roman population extended itself into those provinces, and intermingled largely with the original population, so that finally the Roman and Latin language was substituted for the original Celtic throughout the provinces of Gaul and Spain.

We have a modern instance very analogous to this, with which we are familiar. The state of Louisiana was originally settled by the French. The only inhabitants were of that race, and the French language was the only one spoken in the settlement. But since the acquisition of the territory by the United States, the Americans have spread themselves through the country, have mingled their race with that of the original inhabitants, and finally the English language has, to a great extent, displaced the French.

In the year 55, B. C., the Romans, under Julius Cæsar, passed from Gaul into Great Britain. From that time until 426, A. D., a period of nearly five centuries, the Romans continued to regard Great Britain as a part of their empire.

At length, in the fifth century of the Christian era, the Teutonic or Germanic race, then occupying eastern and central Europe, under various names, as Goths, Vandals, Franks, &c., began to be agitated by a great and steady impulse southward and westward. These fierce northern barbarians precipitated themselves with fearful violence upon the now corrupt, and imbecile Roman provinces. The Roman empire tottering to its fall under these repeated assaults, was obliged to withdraw its forces from the distant provinces for the defense of the imperial city itself. The Roman legions were finally withdrawn from Great Britain in the year 426, A. D., just 481 years after the invasion of Cæsar, and the native Britons were left thenceforward to defend themselves, as they best might, from the barbarians that on all sides threatened them.

The Roman occupation of Great Britain differed materially from their occupation of Gaul and Spain. These latter countries were thoroughly subdued and made part of the great Roman commonwealth, almost as much so as was Italy itself. They were Romanized or Latinized almost as thoroughly as Louisiana is now Americanized. But in Britain the case was different. The Romans there held at best only a military occupation. They maintained one or more legions in the island. They constructed roads, they fortified camps, and had, of course, considerable commerce with the natives. But the Roman people themselves never settled in great numbers in the island.

The connexion between the Romans and the Britons was somewhat similar to that between the present English and the natives of India. There was a state of military subjugation, and, to some extent, of civil administration and government. But there was no general intermixing and fusion of races. There was no extension of the language of the conquerors over the region of the conquered. On the final withdrawal of the Roman legions, in the fifth century, the original Britons are found to have retained hardly any traces of the Roman or Latin language. Less than a dozen of Latin words altogether remain upon the island, as the result of these five centuries of military occupation, and these few words are so much corrupted as to be with difficulty recognized.

Among the Latin words left in Great Britain by the Romans may be mentioned the proper name Chester, both as occurring by itself, and as a part of many compounds, such as *West*-Chester, *Win*-Chester, *Chi*-Chester, *Col*-Chester, &c. "Chester" is a corruption of the Latin word "castra," which means a fortified camp. These fortified camps of the Romans, in the distant provinces, were often permanent establishments, remaining in the same place for a long series of years. Of course, the native inhabitants resorted to these camps for the purposes of traffic, bringing for sale provisions, clothing, and whatever was necessary for the support of the soldiery. Booths were erected, then huts, and finally more settled habitations, arranged in rows of streets, and so each camp ("castra," or "chester,") became the nucleus of a town, giving us Westchester, and Manchester, and Grantchester, and all the other Chesters.

The Latin words, however, that were left in Great Britain by the Romans, during their early occupation of the island, are very few in comparison with the whole number of Latin words that now exist in English. I know not how many Latin words we now have in English, certainly not less than 20,000, or 30,000. But this vast number was not introduced by the Roman conquest. Not more than a dozen altogether are found that came in as the result of that event, and those few are so much altered as scarcely to be recognized. The vast ingredient of Latin words now existing in English is to be attributed to causes of much later date, some of them indeed coming down to the present day. Of these I shall speak more fully hereafter.

The year 451, A. D., is generally assigned as the date of an event that has affected, more than all other causes, the destiny of Great Britain. This was the coming of the Saxons under the two brothers Hengist and Horsa.

The Saxons were a branch of the great Teutonic race. They lived along the southern shores of the Baltic, in the countries now known as Holland, Jutland, Hanover, Sleswick, Holstein, &c., extending from the Rhine to the Vistula. Their position along the coast of the North Sea and the Baltic, and the numerous bays, creeks, and rivers with which that coast is indented, determined in a great measure their occupation, and separated them perceptibly, both in character and destiny, from their Teutonic brethren of the forests of central Germany. They were the navigators of their age. They spent their lives almost entirely upon the waves. Bold, buccaneering, and piratical, they were the terror equally of the Roman and the Celt.

The various tribes of this race were known by different names. Those with which history is most familiar are the Jutes, the Angles, and the Saxons. That part of Britain which was settled by the Angles was called Angle-land, changed afterward into "Engle-land," and then into England. This name, applied primarily to a single province, was ultimately extended to the whole country. The compound term "Anglo-Saxons," taken from the two most notorious of the piratical tribes, is used to distinguish those of the race that settled in England from those that remained on the continent. "Anglo-Saxons" are *English* Saxons, while the term alone, without prefix, usually means continental Saxons.

The Saxons did not come into England all at one time, or in one body. Their first arrival was under Hengist and Horsa, A. D. 451. One part of the race having obtained a secure foothold in the island, other swarms followed from time to time, for several hundred years. In the year 827, nearly four centuries after the first settlement, seven independent Saxon kingdoms had been established in the island, which were then united under one government, known as the Saxon Heptarchy.

The policy of the Saxons in Britain differed entirely from that of the Romans. The Romans had merely a military occupation of the island. They held it in subjection by their foreign legions, and when those legions were withdrawn, the native Britons remained on the same soil where Cæsar found them, improved and civilized indeed by contact with the Romans, but still unmixed as to race, and uncorrupted as to language. But the Saxons came with a far different purpose, and in a far different manner. The Saxons took, not military, but popular occupation of the island. They came, not as an army merely, but as a people. They came, not to conquer merely, but to settle. They made England their head-quarters, their home. Their policy, therefore, was one of extermination. The Romans held the Britons in subjection. The Saxons butchered them, or drove them out. The Roman soldiery and the Britons covered the same area of territory, mingling freely together. The Saxons wanted, not subjects, but soil. The conflict, therefore, between these two races was one of the bloodiest upon record. The result was the expulsion, almost the extermination, of the feebler race. When the Saxon Heptarchy was fully established, the great mass of the native Britons had been literally butchered. Of those that survived this fate some few had settled in Brittany, on the coast of France, but the great majority had taken refuge in the secluded and inaccessible mountain fastnesses of Wales, where they remain as a distinct race to this day. The Welsh of the present day are the lineal descendants of the ancient Britons.

The most striking evidence of the extent to which this exterminating policy of the Saxons was carried, is to be found in the language. Had the Saxons come into the island as the Romans did, and mingled with the natives, even though it had been as conquerors, the original British or Celtic language would have remained substantially unchanged, or at most, there would have been a mixture of the two languages—the British or Celtic, and the Saxon. So far is this, however, from the fact, that after the Saxon conquest was completed, there remained upon the soil scarcely a vestige of the original language of the island. According to Latham (p. 54) the following are the only common names retained in current use from the original Celtic of Great Britain; namely, basket, barrow, button, bran, clout, crock, crook, cock, gusset, kiln, dainty, darn, tenter, fleam, flaw, funnel, gyve, grid (in gridiron), gruel, welt, wicket, gown, wire, mesh, mattock, mop, rail, rasher, rug, solder, size, tackle.

I know of but one instance in history of an extermination so complete, and that is, of the Indian race who originally occupied this country, and whose fate presents a curious parallel to that of the ancient Britons. As there now linger among our hills and valleys a few Indian words which we have adopted and Anglicized, such as tomato, potato, tobacco, calumet, wigwam, tomahawk, hominy, mush, samp, mocasson, &c., so among the Saxons, after their bloody work was over, there remained a few of the words of the old Britons. As the remains of the Indian tribes are now gathered into a body in the west, where they retain and keep alive their native tongue, so the remnants of the miserable Britons were collected into the western part of England, in what is now the principality of Wales, where they retain with the utmost tenacity their ancient language and many of their ancient customs.

The original language of Britain—the old British or Celtic language—that which was spoken by the half-naked savages that Cæsar saw, still exists. It is a living, spoken language. But it is not our language. It is not the English language. It is not that with which we are mainly or materially concerned in our present inquiries. We, Englishmen and Americans, are lineal descendants from the Saxons, and our language, it can not be too often repeated, is the Saxon language. The English language, whose history we are now sketching, though it has received large admixtures from various sources, is in the main the same that was spoken by Hengist and Horsa, and by their countrymen along the southern shores of the Baltic, before their arrival in England in the fifth century.

During the ninth and tenth centuries, the Saxons in their turn were invaded by the Danes. The Danish invasion does not assume much importance in giving the history of the language, because the Danes, although for a time victorious, were finally expelled, leaving the Saxons in possession of the country. The Danes, moreover, were of a race very similar to the Saxons, and their language belonged to the same great family of languages. A considerable number of Danish words were retained in the island, and have been incorporated into the language. They are not, however, so numerous, nor do they differ so much from the Saxon words, as to make any special consideration of them necessary.

The first historical event which led to any serious corruption of the English language, was the Norman conquest. William, Duke of Normandy, generally known as William the Conqueror, invaded England, A.D., 1066, and by the decisive battle of Hastings, routed the Saxons, and gained the English throne. By this event the

Normans became, and continued to be, the governing race in England.

The policy of the Normans differed both from that of the Romans, and from that of the Saxons, and it was this difference of policy that caused such a difference in the effect upon the language. The Normans did not, like the Romans, merely send over an army to subjugate, but came over as a people to occupy. On the other hand, they did not, like the Saxons, exterminate the conquered, but sought to keep them on the soil as a subject and servile race. William divided the island among his followers, giving to each a portion of territory, and of the Saxon population which was upon it. In this manner, two races were diffused side by side over the surface of the island, and kept in constant juxtaposition. The effect of this continued contact between the two races, soon became apparent.

The Normans were superior to the conquered race in military skill, but were greatly inferior in numbers. They sought, therefore, to perpetuate their authority by depressing the social and political condition of the Saxons. They introduced Norman laws and customs. None but Normans were appointed to any important office, either in church or state. Above all, a strenuous and persevering attempt was made to spread the Norman language throughout the island. No other language was spoken at court, or in camp, in parliament, in the baronial hall, or in the lady's boudoir. In this language the laws were written, and judicial proceedings were conducted. No civil contract was binding, no man could sue or be sued, no right could be enforced, and no favor won, except in the language of the governing race. The first step to every Saxon serf that wished to rise from his state of inferiority and servitude, was to forget his native language, and train his tongue to the accents of his foreign masters.

The laws of nature are stronger than the laws of man. The Normans attempted an impossibility. It is impossible for two races, especially if not separated by color, to maintain permanently a separate existence, when kept in constant contact and juxtaposition, as were the Normans and the Saxons. A mingling of race was the inevitable result of this state of affairs. The Saxons gradually intermarried with the Normans, and rose to an equality of legal rights and social position. With the elevation of the race, the Saxon language resumed its rightful position. It had always been the language of the masses, while the Norman had been spoken only by the governing few. When two races become thus blended into one people, they cannot long continue to speak different languages. In this case, the Saxon, as being the language of the many, displaced the Norman, which was the language of the few, notwithstanding all the weight of authority and fashion that had been exerted in favor of the latter.

It would be a mistake, however, to suppose that no changes in the language occurred during this fiery ordeal. As there was a mingling of race, so there was to some extent a mingling of language. If we take a survey of the authors that wrote one or two centuries after the conquest, we find, not the pure Saxon of Alfred and Caedmon, nor yet the Norman parlance of William and his barons, but a mixed language, like the race, predominantly indeed Saxon, but with a large foreign ingredient. This mixed language is our modern English. Its main element is the Saxon. But it has another element, amounting to more than one third of the whole, the introduction of which is to be attributed to the Norman conquest.

But who were the Normans, and what was their language? The word "Norman," is a corruption of Northman. The "Northmen" were the inhabitants of the ancient Scandinavia, that is of Norway, Sweden, and Denmark. They were, in the ninth and tenth centuries, precisely what the Saxons had been in the fifth century. The Saxons, after their establishment in Great Britain, had been converted to Christianity, had acquired the arts of peace, and become comparatively civilized. The Northmen were still unlettered pagans, whose home was in their ships, and whose whole life was warfare. For the greater part of two centuries, they ravaged all the more civilized countries of Europe, bordering upon the coast, until their very name became a terror. Rollo, a leader of one of those adventurous bands, penetrated into the very heart of France, and finally obliged the king to cede to him and his followers an entire province, amounting to no inconsiderable part of the kingdom. This province, thus ceded to the victorious Northmen, or Normans, was thenceforward called Normandy. The cession took place, A.D., 912.

Rollo and his followers were comparatively few in numbers. They gradually intermarried with their subjects in the province which had been assigned them, and adopted their manners, religion, and language. In less than a century after the advent of Rollo in France, his descendants in Normandy were, as to language, scarcely distinguishable from other Frenchmen. But the French language is that introduced into the province of Gaul by the Romans. It is in short a corrupt form of the Latin language. And the Norman-French is the same as other French, only with some northern or Scandinavian words, which the descendants of Rollo doubtless retained, after their settlement in Normandy.

The Norman-French, therefore, which William the Conqueror tried to introduce into England, was in the main a Latin language. He did not succeed in displacing our native Saxon. But he did succeed in introducing into it a large number of Norman-French words, and these Norman-French words, introduced into English at the Conquest, are generally words of Latin origin. These Latin words, thus introduced through the Norman-French, constitute the first important item in the Latin element of the language.

The importance of the Norman conquest, in its influence upon the language, is not be estimated by the actual number of words then introduced. In point of fact, a much larger number of Latin words have been brought into the language since that time, and by other causes. The chief effect of the conquest in this respect was its having created the tendency to adopt foreign words. There is naturally in all nations a strong aversion to the adoption of foreign terms. The natural and spontaneous disposition, when a new word is wanted, is to make it out of roots or stems already existing in the language, and by modes of combination with which the popular ear is familiar. The terrible shock of the Conquest, and the wholesale use of foreign words to which the people then became accustomed, overcame this natural dislike, and opened a wide door for a continued influx of Latin words from a great variety of sources.

The extent of this influx may be estimated, if we call to mind that England, both from its position and from its national policy, has always maintained the closest commercial relations with the nations of southern Europe, and that these nations, the French, Spanish, Portuguese and Italian, all speak languages that have descended directly from the Latin, and that have consequently the closest affinity and similarity with each other. The Norman conquest having brought a large number of Latin words into the language, and having opened wide the door for the introduction of more, by overcoming the national prejudice on the subject, and by making such foreign importations fashionable and popular, there has been ever since an uninterrupted stream of Latin words setting in upon us, like a tide that knows no ebb. Whenever, in the progress of commerce or of the arts, it became necessary to have new words for the expression of new wants, or new ideas, instead of making these new words by a process of home manufacture, we have resorted to the easy credit system of borrowing them from our neighbors. Almost every musical term in the language has been taken from the Italian, many of our terms of etiquette and punctilio from the Spanish, and the entire nomenclature of cookery, dress, and fashion from the French. Italian singers and fiddlers, and Parisian cooks and milliners have levied a tax upon our tongues no less than upon upon our purses. These foreign words, when first introduced, usually appear in a foreign dress. They are printed in italics, or with quotation marks, or in some way to indicate that they are foreigners, and not entitled to the full rights of citizenship. But in a few years, the popular ear gets accustomed to the lingo, the popular lip learns to sound it trippingly, it becomes a part of staple English!

But there is another source, from which Latin words have been brought into the language, even more prolific than that from mixture of race and national intercourse. I refer to learning and education. From an early period in English history, even before the time of the Conquest, learning was confined almost entirely to ecclesiastics. They were all necessarily instructed in the Latin language, because in that language all their church services had to be conducted. Besides this, the Latin language then was, and indeed until comparatively modern times it continued to be, the general language of scientific and literary men throughout Europe. Every treatise intended for general dissemination was written in Latin as a matter of course. It was the only medium by which an author could make himself known to those for whom alone books were then intended; viz. the learned few. In addition to this, it has been for more than a thousand years, and it still is, the settled practice, that the study of the Latin shall form an integral and leading part in every course of education. All educated men, of whatever profession, have been as a matter of course Latin scholars. The language of Cicero and Virgil has been as familiar to Englishmen of education, as that of Chaucer and Spenser. Indeed, as to a critical knowledge, either of authors, or of language, Englishmen have been far more proficient in the Latin, than in their native English. The mother tongue has been left to take its chance in the nursery and the playground, while Latin has been interwoven with every element of their intellectual cultivation.

The effect of such a system must be obvious. The wall of partition between native words and foreign having been broken down by the Norman conquest, scholars have completed what warriors, traders, and artists began. Hence the strange anomaly, that with us, learned men have been the chief corruptors of the language. The Germans, and other Teutonic nations, have been, perhaps, as much addicted to the cultivation of classical scholarship, as we have. But with them the national instinct has never been readily blunted, and has resisted with a great measure of success the Latinizing tendency which has so marked all classical studies with us. Our scholars have found, not only no resistance, but every facility which the established habits of the people could afford, for the introduction of Latin words. Out of this abundance of their hearts, therefore, they have freely spoken. Steeped from boyhood in the diction of the most polished nations of antiquity, they have but followed a natural impulse, when they have used "dictionary" for "word-book," "science" for "knowledge," "fraternal" for "brotherly," "maternal" for "motherly," "paternal" for "fatherly," "felicity" for "happiness," and so on, to an extent which may be already counted by tens of thousands, and which is constantly increasing.

If now, from a review of the whole subject, the question be asked, what are the main elements of the English language, the answer will be obvious. There are, indeed, as we have seen, a few old Celtic words, which have come down to us directly from the ancient Britons. Among the thousands of words, also, that have come to us from France, Spain, and perhaps Italy, there are doubtless some few of Celtic origin, because the original population of all those countries was Celtic, before they were overrun by the Romans. We have also some few Scandinavian words introduced by the Danes during their invasions of England in the ninth and tenth centuries. There are, too, no doubt, not a few Scandinavian words brought by the "Northmen" into France, and thence by their descendants, the Normans, into England after the conquest. We have, also, as every nation has, occasional words derived from every country, no matter how remote, with which we have had commercial intercourse, or with whose literature our soldiers have been conversant; e. g.

Tariff—	Tarifa, a town near the Straits of Gibraltar, where duties on goods were formerly collected.
Tamarind—	Heb. Tamar + *ind*-us.
Damask, Damascene,	Damascus.
Spaniel.—	Hispaniola, the place whence this species of dog was derived.
Ratan.—	A Malay word.

But all these together are few and inconsiderable, in comparison with the whole number of our words, and they do not affect its organic character. The overwhelming majority of our words are still of two classes. They are either Saxon or Latin. These are the two main elements which constitute the language.

No mention has been made thus far of *Greek* words, of which we have a large number in the language. The omission has been intentional, and for the purpose of simplifying the historical survey of the subject. The Greek language is so nearly allied to the Latin, that in a discussion like this, they may be considered as one. It is only necessary to remark, that very few Greek words have been introduced by mixture of race or by commercial intercourse. The Greek words which we have, have been introduced almost entirely by selections and books. Nearly all of them are scientific terms. Indeed, nine-tenths of all the scientific terms that we have, are Greek.

Of the relative numbers of these two classes of words, (Saxon and Latin) it is impossible to speak with certainty. If we exclude all compound and obsolete words, and all words introduced by the arts and sciences during the last hundred years, the ratio of Anglo-Saxon words to the whole body of the language, would probably be about five-eighths. If we examine, however, the page of any ordinary English book, the Saxon words will be found to bear even a larger preponderance than this. The reason is that all the small connecting words, the articles, pronouns, prepositions, conjunctions, and most of the adverbs, are Saxon. These small words occur at least ten times as often as any other class of words in the language. e. g. " wickedness," which is Saxon perhaps may not occur more frequently than " malice " which is Latin. But " the " will be found a hundred times where either of them will be found once. Again, some writers are noted for their partiality to the Latin vocables, others for their partiality to the Saxon. But, taking the average of different writers, and excluding works of science in which sometimes the words are almost entirely Latin and Greek, I suppose that the Saxon and the Latin words on any page of ordinary English will be found as five, perhaps, as six, to one.

The Latin words that have found their way into the English, may be again divided into two well-defined classes, viz., those that have come to us by national intercourse and admixture, and those that have come through learned men and education. The former have come from languages that are not pure Latin, but are the modern representatives and descendants of that tongue, viz. the French, Spanish, Portuguese, and Italian. The others have come from the fountain head, the Latin itself. Words of the former class are all more or less corrupted, either in those modern languages in which the English found them, or in the transition from those languages into the English. Words of the latter class, taken from the Latin directly, are changed very little, or not at all.

The difference between these two classes can be best illustrated by a few examples. It exists mainly in the stem, or root of the word. Both classes are obliged to conform to the English idiom as to the termination. But in the stem, while those coming from the Latin directly are with little or no change, those from the other languages, particularly those from the French, are almost invariably changed in the spelling.

Latin Stems.	Words coming from the Latin directly.	Words coming from the French, or some other modern descendant of the Latin.
Curs-us	curs-ive	course.
Cur(r)o	cur(r)ent	cour-ier.
Reg-is	reg-al	roy-al.
Fruct-us	fruct-ify	fruit-.
Fragil-is	fragil-e	frail-.
Pung-ens	pung-ent	poignant.
Punct-um	punct-ual	point-.
Recept-um	recept-acle	receipt-.
Decept|um	decept|ion	deceit.
Diurn|us	diurn|al	journ|al.

It is the common opinion, that the language has deteriorated in consequence of this multitude of foreign admixtures. Some purists in style have gone so far as to recommend and attempt an entire disuse of words of Latin origin, to put them upon the ban of public odium, and to stigmatize them as intruders and foreigners. It cannot be doubted indeed that many writers have carried to a ridiculous extent their partiality for the Latin vocables. No writer, perhaps, has made himself more notorious in this respect than Dr. Johnson. No book in the language on the contrary is more free from this Latinism, or is in purer English in all respects, than the English translation of the Bible. You will find sometimes, in whole pages, scarcely one word in ten that is not pure Saxon. In the Lord's Prayer, for instance, the only Latin words are *debts*, *debtors*, *deliver*, *temptation*, and *glory*. Among the writers who come nearest to the translators of the English Bible, in the purity of their English, are Shakespeare and Addison. If in any of these writers, we were to substitute for the Saxon words the corresponding Latin synonyms, we would instantly perceive a falling off in expressiveness. "Our Father, who art in Heaven," for instance, translated into Johnsonese, would be some such vapid trash as this,—"Paternal Being, who existest in the celestial regions!"

That part of the domain of English letters in which words of Latin origin most abound, is in the field of science. With the exception of a few Arabic terms, almost our entire scientific nomenclature is derived from the Latin and the Greek, particularly from the latter. I suppose that at least nine tenths of our scientific terms are Greek.

Geology, botany, mineralogy, grammar, logic, mathematics, physics, and metaphysics, are all in a state of utter dependence upon languages with which none but the learned are familiar. This has been and it is undoubtedly a hindrance to the communication of knowledge. To any one acquainted with the Greek and Latin, the terms used in the different sciences almost of themselves describe the objects to which they are applied, without further study. If now, these terms, instead of being taken from a dead language, were drawn from the resources of the mother tongue, the very structure of the word would show its meaning even to the unlettered, and with the meaning of the word would be conveyed a knowledge of the thing.

When, for instance, the anatomist speaks of the "systole" and "diastole" of the heart, he talks Greek. He must consequently explain himself. He must give in different words a description of the thing meant, and after you have learned from these other sources the nature of the subject, you infer vaguely what must be the meaning of the words. Now, suppose the anatomist had been called to explain the same point to a native Greek. The words themselves convey the idea which is meant, and nothing more is necessary to convey this idea, even to an unlettered man, than a mere enunciation of the terms. To a native Greek, systole and diastole, apogee and perigee, hydraulics, hydryonamics, clepsydra, chreosote, isomeric, isomorphic, metamorphic, and all the other thousands upon thousands of scientific terms, which so puzzle the mere English student, are just as intelligible and expressive in themselves, as to the native Englishmen are our homespun compounds, ink-stand, pen-handle, note-book, sunrise, woodland, hill-top, cornfield, snow-flake, pitchfork, daylight, forenoon, afternoon, and so on to any extent. I cannot doubt, therefore, if the terms of science had been, from the first, and throughout, carefully elaborated out our own native materials, the difficulties in the communication of science would have been much lessened.

The actual number of foreign words in the language, great as this is, is not the worst feature of the case. A still greater evil is the national tendency to adopt others as fast as they are wanted, without reluctance and apparently without limit, instead of producing them by a process of home-manufacture. In some languages, there appears to be a perfect reliance upon their own resources for the expression of new ideas. Whenever, in the progress of the arts, or in the wide ranges of human thought, it becomes necessary to employ some new word for the expression of some new shade of meaning, it is always done, in a language of the kind now under consideration, by some new combination or fresh moulding of the materials already existing. Such a process begets a habit, and with the habit a facility, in the formation of compound and derivative words, that in the end render a language in the highest degree flexible and expressive. Such is the truly infinite power of combination in a language so formed, that it is impossible to conceive an idea which the language does not furnish within itself the means of completely expressing. But, how different is this from the condition of the English. Every new fashion from the French milliners, every new dish from the French cooks, every new dancing woman from the French stage, every new singer or fiddler from the Italian opera, every discovery in science, every invention in art, even too often the arts and wants and inventions that spring up indigenously among ourselves, have to be made known to the public under some foreign term. Such is the fashion; and fashion in language, as in most other things, is supreme. The writer of a treatise for every-day use, who, instead of calling it a "Manual," should call it a "Hand-book," which is honest English, would be regarded as an innovator and a pedant, and his book would be very quietly consigned to the "tomb of the Capulets." Even our great Lexicographer, Noah Webster, with all his learning and all his temerity, had not the courage to call his "Dictionary" a "Word-book."

How different have been the fortunes of the English from those of the German. These two languages, in the commencement of the race, started even. They were both of the same common stock. Their parents, the old Saxon and the old German, have a common ancestor in the venerable Gothic. Cradled in the impenetrable forests of the elder Europe, they were in the fifth century in the same incipient formative condition. The German, hemmed in on all sides, but not invaded, was led by circumstances to draw upon its own resources for the invention of new terms to express the new ideas which became evolved in the onward progress of civilization. Hence has resulted a language capable of expressing, by combinations of its own native words, every shade of meaning required even by the teeming brains of that nation of students—a language uniting infinite diversity of forms with entire simplicity of materials. How different the English! —a conglomerate of materials from a dozen different sources; affluent, indeed, almost beyond comparison, in its multiplicity of words, but wanting in that noble simplicity and expressiveness which might have been the result of a different course of political events.

But let us not be among the croakers. Bad as the case is, it is not entirely hopeless. The introduction of the study of the Anglo-Saxon, as a part of a course of liberal education, will help to check the Latinizing tendency of scholars and writers. There are, moreover, in various quarters, symptoms of a growing partiality for words of native stock. Besides this, the very evil complained of is not without some compensating advantages. One advantage of this facility with which we borrow foreign words, is that we have thereby become, beyond all nations, rich in synonyms. For the same idea, in almost numberless instances, we have two, and sometimes even three terms, exactly equivalent and equally legitimate. This is a decided advantage, saving oftentimes tiresome and inelegant repetitions. The writer who has tired his readers with the term "native language," may take refuge, as in this article I have had frequent occasion to do, in the "mother tongue." The idea is kept up, but the tautology is spared. Moreover, it frequently happens in these cases, that of two words of different origin, used to express the same general idea, the one has acquired by usage a slight shade of meaning different from the other, so delicate and evanescent as scarcely to be defined, and yet perceptible to a cultivated taste, and beautiful in proportion to its delicacy. How logically the same, and yet how different to the loving heart, are the words "maternal" and "motherly." It is his skill in availing himself of this peculiarity of the language, that among other things enables our own Washington Irving to express with such marvellous exactness the endlessly-varying shades of human thought and feeling—that enables him to pass from the grave to the gay, from the didactic to the playful, from the humorous to the sublime, with an ease that seems only equalled by the movements of the mind itself.

Far be it from us then to join the ranks of those who would dismiss with a rude rebuff these Latin-English intruders. They are now here. They form a large and valuable element of our language. While we protest against and resist the introduction of more, and while we make the native element of the language a subject of cultivation by studying carefully the original Anglo-Saxon, let us give to the Latin element such a portion of study as will enable us to understand both its meaning and the laws of its formation.

The fact that the words of Latin origin constitute one-third or more of the words in the language, is often used to prove the necessity of making this element of the language a distinct subject of study. The best preparation for such a study is a knowledge of the Latin itself. In default of that, the next best preparation is a knowledge of some of the languages that have sprung from it, *i. e.*, of the French, Spanish, or Italian. Fortunately, in this respect, nearly all educated persons have one or the other kind of preparation. Some have both. But there is something wanting besides a general knowledge of Latin. There should be specific study of that portion of the Latin which has crept into our language. These words are no longer pure Latin. In some instances the stem has been corrupted, particularly in those from the French. In all instances the Latin terminations for numbers, cases, genders, persons, and tenses, &c., have been exchanged for the corresponding Saxon terminations. Oftentimes a word has changed its meaning, as well as its form, in the transition. A proper knowledge of these peculiarities requires some distinct and special study, though it need not be very great in amount.

If the Latin element of the language calls for distinct study, because it constitutes about one-third of the language, how much stronger is the reason for studying that which constitutes the remaining two thirds? If the one third is already tolerably well provided for, in the fact that nearly all educated persons are acquainted with either Latin or French, how inadequate has been the provision for the two thirds, when not one educated person out of a thousand is acquainted with the original Anglo-Saxon? If the foreign element deserves attention at our hands, how much more that which is native? If the study of the Latin and French has led educated persons to an offensive and injurious partiality for the use of words of Latin origin, when they might have had home-spun English equally good, the tendency is to be corrected, not by discarding classical studies certainly, but by engrafting upon our course of education the study of the Anglo-Saxon.

The importance of studying the Anglo-Saxon, or native element of our language, will be further apparent from a few considerations growing out of its peculiar character. This point was discussed with great force and elegance by the Edinburgh Review for 1839. I give the substance of the reviewer's argument, with some alterations and additions, in the following paragraphs.

In the first place, all the grammatical inflections of the language are Anglo-Saxon. These are chiefly as follows; the possessive case, *'s;* the plurals of nouns, *s*, *es*, *en*, &c.; the comparative and superlatives of adjectives, *er*, and *est*, and the kindred termination, *ish;* the most common adverbial termination, *ly;* the cases and numbers of the pronouns; the second and third persons of the verb, *st*, *s*, *th*, &c.; the past tense and perfect participle, whether formed by adding *ed*, *d*, or *t*, as in affirm*ed*, lov*ed*, wep*t*, or by a change of the stem, as in s*i*ng, s*a*ng, s*u*ng. These inflections and inflectional changes form a vital and most expressive part of a language. No entire words are used anything like so much as these modifying parts of words. Though not numerous in themselves, hardly amounting to fifty altogether, they are in most constant requisition. No noun, (with rare exceptions) is without its plural, no adjective without its degrees of comparison and its adverb, no verb without its tenses, persons, and numbers. The terminations necessary to express these changes of thought will occur as often as there are nouns, adjectives, and verbs in the language. If to the word "walk" we add the termination *ed*, we give to the meaning an entirely new and additional idea, namely, that of past time. The original word expresses a certain action. The word with the suffix expresses that same action, and also the idea of its being done in past time. The suffix has a power and meaning of its own just as much as the main word has. Now, probably, nine-tenths of the words in the language are dependent upon these grammatical inflections to express the varying shades of thought or action to which each is subject, and these grammatical inflections are all pure Anglo-Saxon. This is true equally of the native words and of those derived from the Latin. To give to the verb "occur" the idea of past time, we use not its own Latin termination *ebat*, but the Saxon *ed*. The plural of "liquid" is not liquid*i* but liquid*s*. The superlative of "pure" is not pur*issimus* but pur*est*. And so of the rest. Perhaps it would be no exaggeration to say that one-third of the ideas contained in any given page are expressed by these grammatical inflections. The fact surely is a strong argument for the study of the Anglo-Saxon, in which these inflections originate.

But there is in every language a class of words that perform an office very similar to that of the inflections. They serve to modify and limit the meaning of other words, and in modern languages they are to a great extent a substitute for the fuller inflections of the ancient languages. They may therefore be called grammatical words. Among them may be reckoned the following; the articles *a* and *the ; more* and *most* used to express degrees of comparison; all the pronouns, personal, relative, and adjective, such as *I*, *thou*, *he*, *she*, *it*, *we*, *you*, *they*, *who*, *which*, *what*, *this*, *that*, *each*, *every*, *either*, *neither*, *any*, *one*, *none*, *all*, *such*, *some*, *both ;* the most common adverbs of time and place, derived from the pronouns, such as *here*, *there*, *where*, *when*, *then*, *how*, *whither*, *hither*, *thither*, *whence*, *hence*, *thence*, the numeral adjectives; the auxiliaries of verbs, *be*, *have*, *shall*, *will*, *may*, *can*, *must*, and all the *prepositions* and *conjunctions*. Now, these grammatical words occur in discourse almost as frequently as the inflections, and they are without exception Anglo-Saxon.

But among the ordinary words of the language, it has so happened that those most capable of rhetorical effect, and consequently most important to the orator and the poet, are derived from the Anglo-Saxon. We may take for example the names of the most striking objects and agencies in nature, as the heavenly bodies, *sun*, *moon*, *stars* ; three out of the four elements, *fire*, *earth*, *water* ; three out of the four seasons, *spring*, *summer*, *winter* ; most of the natural divisions of time, *day*, *night*, *morning*, *evening*, *twilight*, *noon*, *mid-day*, *sunset*, *sunrise* ; the most striking operations of nature, *thunder*, *lightning*, *hail*, *snow*, *rain*, *cold*, *frost*, *light*, *heat* ; the most beautiful parts of external scenery, *hill*, *dale*, *dell*, *sea*, *land*, *wood*, *tree*. These words call up vivid ideas to the mind, and are among the most expressive that the language contains.

There is a class of words in every language that have a very strong and peculiar effect upon the mind, because of their associations. They are connected with the recollections of childhood, and bring to mind the duties and enjoyments of love, friendship, and hospitality. This important class of words, is, in our language, derived almost entirely from the native element. From this source we derive the terms *father*, *mother*, *husband*, *wife*, *brother*, *sister*, *son*, *daughter*, *child*, *home*, *kindred*, *friend*, *hearth*, *roof*, *fireside*.

It is a common and sound maxim in rhetoric, that the more abstract a term, the less vivid it is ; and the more special, the more vivid. Abstract and general terms for the most part arise in the prosecution of scientific and philosophical inquiries. Studies of this kind originated among the English at a time when scholars used the Latin almost exclusively. Hence Latin words prevail with us in the departments of logic, speculative philosophy, and science, more than in any other field of human experience. Hence, too, nearly all our abstract terms are Latin, while our more vivid special terms are Saxon. Thus *move* and *motion* are Latin ; but the words expressing the various specialities of posture and of bodily action are Saxon ; as *to sit*, *to stand*, *to lie*, *to run*, *to walk*, *to leap*, *to stagger*, *to slip*, *to slide*, *to strive*, *to glide*, *to yawn*, *to gape*, *to wink*, *to thrust*, *to fly*, *to swim*, *to creep*, *to crawl*, *to spring*, *to spurn*, &c. We receive from the Latin the general terms *emotion* and *passion* ; but the Saxon gives us the names of the individual mental affections included in these terms, such as *love*, *hope*, *fear*, *sorrow*, *shame*, as well as the external bodily signs of these affections, such as *tear*, *smile*, *blush*, *frown*, *to weep*, *to sigh*, *to groan*. *Sound* is Latin, but *to buzz*, *to hum*, *to clash*, *to rattle* are Anglo-Saxon. *Color* is Latin ; but *white*, *black*, *green*, *red*, *yellow*, *blue*, *brown*, are Anglo-Saxon. *Crime* is Latin; but *murder*, *theft*, *robbery*, *to lie*, *to steal*, are Anglo-Saxon.

Member, as applied to the body, is Latin; but *ear*, *eye*, *hand*, *foot*, *lip*, *mouth*, *teeth*, *hair*, *finger*, *nostril*, are Anglo-Saxon. *Animal* is Latin; but *man*, *cow*, *sheep*, *calf*, *cat*, *dog*, *horse*, are Anglo-Saxon. *Number* is Latin; but *one*, *two*, *three*, *four*, *five*, and so on, till we come to "million," are all Anglo-Saxon.

I repeat, therefore,—and this is the conclusion of the whole matter,—that whether we consider the character of the Saxon element, as containing the most energetic and descriptive words that we possess; whether we consider the important fact that the grammar of the language, including the grammatical words, and those most vital parts, the inflectional changes, is wholly Anglo-Saxon; or, whether we consider merely the relative proportion of the native element, containing as it does nearly two-thirds of our whole stock of words—there are, surely, in every view of the case, cogent reasons for giving to the study of the Anglo-Saxon that distinct and prominent position in our course of liberal education, which has never yet been assigned to it.

II. b. DISCUSSION UPON PROF. HART'S LECTURE.

Bishop Potter.—I wish to make a suggestion for the consideration of Prof. Hart, in preparing this paper for publication. He has designated classical words as "intruders." It is true he does not object to retaining a portion of them, but still he characterizes them as intruders. I would suggest to him whether this is, on the whole, an appropriate view of the subject; whether the capacity of the English language to appropriate and naturalize foreign words, is not a most praiseworthy feature of our language; whether it is not that feature of the language which promises to fit it, and to fit the nations which speak it, preëminently to become the missionaries of the globe; whether, if the language had obstinately refused, as the German has, to appropriate to itself words from other languages, it would have been as well fitted, either for its destiny in the future, or for its destiny in the past. I think that when we go to other nations, either with the gospel or with civilized institutions, we go with a strong argument in proportion as we go with words which are "native there and to the manor born." And one thing which perhaps more than all this binds the English people inseparably to the past, is the fact that we have so large a share of Latin and Greek words. The very fact that the nomenclature of modern science consists of words of Latin and Greek origin, tends to alleviate the danger that the great enthusiasm with which the physical sciences have been studied of late may lead them to supersede entirely the old learning as an instrument of culture. The fact that words coming from those languages are the words naturally adopted by scientific men, proves that they have not so far ignored the old learning, and renders it more and more necessary that they should not do it. It seems as if this might be the means of reconciliation between the learning of past ages and modern science, and secure this one great desideratum, that while we press forward to the future, we may not ignore the past; and whatever of civilization or knowledge the past has to furnish us, we should thankfully and gladly accept it. It seems to me, Sir, that the greatest work which language alone has ever accomplished in this world, was the marriage of the Saxon and Gothic elements of the human race; and I ask whether that marriage could ever have been consummated without producing the very language we now speak. If, in the publication of that paper, therefore, Prof. Hart would reconsider the somewhat stern terms in which he has denounced Latin intruders, I should be glad.

Prof. Dimitry, of La., said, that he professed not to be altogether unfamiliar with the parallelism of the languages of Europe. He had not allowed the better days of his life to pass without an inquiry into the anatomy of the human mind, as it reveals itself in the articulations of words. He had also a respect for the Anglo-Saxon language; a term which had first made its appearance upon the lips of John Randolph, who awoke one morning and made the great discovery that there was a language, not the English which he himself spoke, but the Anglo-Saxon, made up of the remnants of the eminent languages spoken in some of the counties of England. He was not averse to the introduction of the Anglo-Saxon language as a study in our high schools; especially as like other languages of inferior grade, it covers a very small ground, ten respectable octavo pages being sufficient to contain the whole grammar of the language. But he had risen more particularly to protest against this attempt to destroy what the labor of centuries had erected; to protest against this desecration of the development of intellect. He had observed the very language of Prof. Hart in his admirable essay, and it was not the Anglo-Saxon language. Even upon the very page of his reasoning where he had inveighed against these intrusions from the Latin tongue, in the very language in which he had arraigned the throwing aside of the Anglo-Saxon tongue, Prof. Hart had used forty-seven words of those very intruders. The Anglo-Saxon was not the language in which had been written the inspirations of a Milton, the glowing pages of a Burke. He appealed to members present not to ostracize the glorious form which intellect had now assumed for its manifestation, not to overturn the beautiful structure which might now be called the universal English language.

Dr. Proudfit had been very much struck with the large view of the subject taken in the few remarks offered by Bishop Potter, and felt strongly impressed with the belief that it was not only the largest but the only practical view. He had listened with very great pleasure to the discussion of Prof. Hart; and yet during the reading of the essay, it had often struck him how deeply Prof. Hart would have cut into his own performance, if he had undertaken to practise his own maxims. The single observation which introduced the train of remarks tending to the exclusion of these foreign elements from our language, was, as nearly as he could recollect, this:—"The *introduction* of the *study* of Anglo-Saxon, as an *important part* of *liberal education*," *&c.* Almost every important word there is one of these very intruders, a word from the Latin, and perhaps ultimately of Greek origin. He felt confident that when Prof. Hart should prepare his essay for publication, he would modify the language in accordance with the suggestion of Bishop Potter. Although politically he might be in favor of limiting the privileges conferred by our naturalization laws, he would not like to turn out not only all who had ever migrated to our country, but all descendants of immigrants. Such a course might turn out some of our most valuable citizens. So he could not go the length of linguistic Know-Nothingism, and he did not believe Prof. Hart would have the *heart* to do it. (Laughter.) He believes that the introduction of these foreign terms had vastly enriched and strengthened our language. It would now be impossible to spare them either from science or from ordinary life. True the gates were opened sometimes rather too wide, as perhaps in the case of the stately, magnificent, elaborate, and too harmonious periods of Robert Hall. He believed that too many foreign elements had been introduced; for the variety, grace, freshness, and congeniality of our language would be greatly promoted by bringing into decided predominance the motherly elements of the original stock. Still he believed that it was utterly impossible to adopt, with regard to foreign words, the principles of the Athenians, who refused naturalization to all foreigners, who always regarded them as μεταχοι, strangers. No man had dwelt with greater severity upon the introduction of the foreign element into a language than Cicero; and yet that very writer had fallen into the same inconsistency with Prof. Hart; for he had not written three lines after that observation before introducing a Greek word, and was constantly introducing not only Greek words, but phrases, *citations.* He uses the Greek language wherever he finds it to serve his purpose better than the Latin; and Dr. P. supposed that every man would use words from any language, which would best convey his thoughts. For this we had the authority of Horace, who asks, if we can enrich our speech with words from foreign tongues, who shall forbid us; we add so much to our original language. This seemed to be the just medium between the two extremes; and while he was delighted with the elaborate production of Prof. Hart, he still hoped that he would adopt Bishop Potter's suggestion, when he came to prepare his remarks for publication.

PROF. HART.—I agree so cordially with the gentlemen who have spoken, that I think I could not have made myself understood in my lecture. I say in my lecture, "Let us not be among the croakers," &c.; "It is a common opinion that the language has deteriorated," &c. "Some purists of style have maintained," &c. I only put it as the opinion of others; although I confess I did give these words some hard hits. "Far be it from us to join the ranks of those who would dismiss with ready rebuff these Latin intruders; they are here; we must use them." I did call them "intruders" there, Sir, because they have been so styled by others. What I meant to insist upon was that educated men should give a tone to our language by cultivating the original element, so that Latin may not be the only element that is in the minds of educated men. In that way I wished to press, in a measure, this proclivity to use foreign words where we have Anglo-Saxon words to express the same ideas. In many cases we have no choice. It would be difficult to write a single sentence without using several Latin or Greek words. I wished to get up a sort of counter-irritation; so that in our instruction, the native element might be more attended to; and having our ideas thus associated to a greater extent than at present with words of Anglo-Saxon origin, we should get into the habit of using them more. I merely wish to interpose some barrier against this flood-tide of introducing foreign words.

Mr. Hamill said, that every one aware of Prof. Hart's fondness for the Latin tongue, must be satisfied that he could never have intended to characterize all words from the Latin as intruders, to be banished from our language. It was a pleasant thought to him, that our language, like our country, is a grand asylum. Providence seemed to have made it the mission of our language to be a receptacle from many languages, as well as the mission of our country, to receive and welcome the inhabitants of many nations. They came here and were Americanized. The words had grown into and become part of the language which seems destined to oversweep this continent, and to extend wherever our missionaries or our merchants or our sailors go, enriched not only by the Latin and Greek, but by many languages.

Prof. Bache.—I listened with great care and attention to the reading of Prof. Hart,s paper; and while I thought he dealt some hard thrusts, yet, knowing his proclivities, perhaps, I did not take his paper in the sense in which it has struck our classical friends. It appeared to me that Prof. Hart had before him two children, both of which he loved, one more attractive, the other more homely. He brought before us the more homely child, and in eloquent language, drawn not only from its lips but from those of its more favored sister, he gave us his views of the neglected offspring. Now we know that in bringing forward his views, every man must be allowed to go a little beyond the mark, in order that when the pendulum swings again, it may keep its motion. If the Prof. did go beyond the mark, I think we may forgive him, and I doubt not that he may manage in accordance with the suggestions of Bishop Potter, Prof. Dimitry, and Dr. Proudfit, to diminish somewhat the force of the blows dealt to this charming sister.

Bishop Potter.—I cannot but admire the ingenuity of Prof. Bache in his illustration; but I think it is going rather too far to suppose that any mother would be so anxious to excuse the ugliness of one of her offspring as to attempt to abuse another. I think Prof. Hart spoke in tones of commendation of the fact that the Germans have always perseveringly resisted the introduction of these foreigners, and when they reached new ideas, as the Germans are very apt to do, have invariably insisted upon forming a new word from their own language. And we know, Sir, what extraordinary words they have invented, and what unmanageable ones for any tongue except their own. In my own opinion, not only upon the ground of convenience, but in a cosmopolitan view, our own practice is the better one, because it introduces words which belong not merely to the English nation, but which, to some extent, are at home the world over. If we have a Latin term expressing precisely the meaning we desire, it is the wiser policy, wiser for us, wiser for all mankind, and wiser because it bridges over more and more the chasm between us and the past.

Mr. Barnard made some inquiry as to the period in the school or college course in which this study should be introduced, the mode of instruction, &c.

Prof. Hart replied. Teaching the Anglo-Saxon to boys already considerably advanced in the knowledge of their own language, and with a view to cultivate and improve that knowledge, one lesson a-day for two terms, with vigorous attention, he supposed to be sufficient. The words would be familiar, after the etymological changes had been thoroughly explained; and the syntax is identical with our own. He proceeded to state what books had been published to facilitate the study; and remarked that his desire was to have the Anglo-Saxon taught together with the Latin and Greek, as it might be done without interference with them, as a part of a course of liberal education.

Prof. Dimitry said, that he merely feared that during the existence of tendencies in this country which could not be mistaken if such a powerfully-written essay, such an admirable syllabus or parallelism of the languages of the world should go forth indorsed by such an Association as this, the language which had been objected to would become an instrument in the hands of the iconoclasts. But for this he would *toto corde* have allowed the "intruder" to pass. Prof. D. proceeded to speak at some length in favor of the introduction of the Anglo-Saxon as a classical study, provided it should not displace the Latin and Greek languages.

Bishop Potter said that in Dr. Johnson's time there was no doubt a tendency to corrupt the language by the unnecessary introduction of words; but that there seemed to be now a reaction, somewhat vehement even, and the tendency seemed to be towards the other extreme. It was therefore unnecessary to enter a protest against a tendency not now prevalent. He wished to ask, also, what was the literature which the Anglo-Saxon language would open to the student; whether there were treasures of any extent and value in that language to repay the student for acquiring it. The use of the classical course of study was not only to give us a better knowledge of our own knowledge, but still more to bring us in contact with superior intellects in other lands and in other times.

Prof. Henry inquired, What is the manifest destiny of the world in regard to language. Is it possible to occupy it with any language of the present day? Languages spring up in different parts of the world, differing from each other, partly from isolation, partly from the difference between the different tribes and nations. That isolation, by the modern improvements of locomotion, has been broken down. The American, the Russian, the German, and the Italian, are found together on the top of one of the Egyptian pyramids. They must speak together, commune together. Languages must ultimately affiliate; they must melt into one.

Dr. Stanton.—I wish to add my testimony to that which has already been given to the Association in favor of the lecture of Prof. Hart, and to express the hope that it may be modified so as to accord with the views which have been suggested—and I understand that a verbal alteration is all that is necessary—in order that the resolution now pending may pass unanimously, and that it may be spread before the public, as it were under the sanction of this Association. The facts stated by Prof. Dimitry as well as by Prof. Hart, of the narrow extent of the Anglo-Saxon language, and the short time requisite to master it, to my mind furnish a strong argument in favor of carrying out their views, by introducing the study of this language into our schools, because as has been shown, and as we all know, it forms the basis upon which the present structure of our language now rests.

Whatever may be my views of the political question of not admitting foreigners into the country, I certainly would not raise a barrier against the admission into our language of words from any and every tongue. I would rather throw the door wide open; and wherever we can find a word or a phrase that is valuable, I would introduce it. It has been suggested, and may prove prophetically true, although we may not live to see its realization, that the English language may become the one language of the world. If, in the ruling of Providence, such should be its mission, one advantage which it would have, would be that as it penetrated the nations now speaking other languages, they would discover in it an acquaintance already formed, in the words which we had borrowed from them. This, independently of all other considerations, would induce me, instead of resisting the introduction of foreign words, to throw the door wide open, and to welcome them. Nor has it ever seemed to me that such a course would have a tendency to "corrupt" our language any more than the intermarriage between different nations has a tendency to corrupt the blood. It is corruption, if we regard purity merely as referring to the original stock; but in no proper sense of the term corruption, can I conceive it to be applicable to the introduction of words from foreign languages into our own. I am most heartily in favor of the publication of the paper which has been read.

Prof. Hart made some further remarks as to the books to be used in the study of the Anglo-Saxon, &c. The study of the Anglo-Saxon, which appeared to him desirable, was not that which would make it a radical branch of study, as the Latin is, as a means of mental discipline, but merely as a means by which on the one hand we may become better acquainted with the meaning of our own words, and on the other hand might become equally familiar with their use. He remarked also that we have not now that precise knowledge of the meaning of words derived from the Anglo-Saxon which we have of words of Latin or Greek origin. We have not, for example, the same precise notions of the meaning of the terms "guilt," "guilty," as of "conscience," "consciousness," "justify," &c. Yet by referring to the original meaning of the terms "guilt," "guilty," they would be found to have a metaphorical meaning as clear and precise as the words "straight," "oblique," "rectangular," &c. The study of this original element of our language, carried even to a moderate extent, would give us a precise appreciation of the meaning of those words derived from the original stock.

Prof. Proudfit spoke of the invaluable assistance to be derived from a course of study incidentally suggested by Prof. Hart, the study of the parallelisms of different languages; a study which would not only be of inestimable value but of great interest to the student. By tracing every word, while studying Greek and Latin to its root, and following out its etymological relations not only to its own but to other languages, we should find all languages interlaced, as it were, by curious and beautiful associations, and we should discover a marvellous vein of etymological treasure running through most of them. Thus we should not only have a more perfect apprehension of the meanings of the words thus related, but should be enabled to recollect those meanings much more readily and more vividly than in studying each language by itself.

As an illustration of the parallelisms of different languages, he referred to the Greek word αω, to breathe; which he supposed to be an imitation of the act of expiration of the breath. He traced its derivation in the Greek; then from the Greek ανεμος passed to the Latin *animus*, the English *animal*, &c., derived metaphorically from the same word. Thus tracing the derivations of the original Greek root through the Latin, English, Spanish, Italian, French, &c., the student could never forget the meaning of these various words. He was thus at the same time assisted and encouraged in the process of augmenting his knowledge of the ancient languages, adding to his knowledge of foreign modern languages, and increasing his knowledge of his own. He would no longer look upon these words as belonging to one isolated language, but as having an understood relation to a multitude of other words in a multitude of other languages. Thus immediately we might receive from the discussion of Prof. Hart, an answer to that question so often asked, How shall we secure such an interest in the study of ancient languages as to make it effective and successful?

III. CLASSICAL EDUCATION.

BY DAVID COLE, PRINCIPAL OF TRENTON ACADEMY, N. JERSEY.

Mr. President and Gentlemen :—

I propose, in the following paper, to inquire whether the system of study pursued in our Colleges, Academies and High Schools is adapted to the wants of the age, or whether any modification or material improvement of it is called for by the progressive spirit of the times.

It is the fortune of a teacher to be constituted the depositary of all the views on education that are entertained by the people among whom he labors. He meets with men of all opinions, and men of no opinions at all. Many parents commit their children to him without a word of inquiry, and suffer them to remain under his charge year after year, without manifesting, if they feel, any interest whatever. Some do this, because they are absorbed in their own pursuits; others, because they are too timid to say any thing, or because they do not know what to say. But there *are* some who call and have an interview with the instructor, and honor him with a free expression of their views about education. Of these, some send their sons to school only because it is the custom to do so. They affect a profound contempt for school instruction, and tell you that though they went to school one quarter only in their whole lives, they have yet amassed more money and other property than certain other persons who passed many years at school.—They will speak with disdain of "bookworms," and tell you of the success of men who keep their eyes and ears open, and find out more in a day than your "scholar" finds out in a week. Employers of this class seldom honor the teacher with a second interview, because they have no interest in what or how much their children learn, or how they discharge their duties at school. But the teacher has patrons who value instruction. They will speak in unmeasured terms of its utility and advantages, and inquire with the deepest concern into the system of study pursued, the arrangement of hours, the rules, regulations and entire governmental economy of his school. One thinks no school can be governed without the rod; another regards corporal punishment as unworthy of the profound good sense and boasted refinement of the nineteenth century. One is particularly anxious that his son may have lessons enough to keep his time pretty well occupied at home ; another thinks that too severe impositions of labor will check the buoyant spirit of the child, and insists that he be not required to prepare any lessons out of school. One regards school recesses as an unpardonable waste of time ; another thinks nothing more deleterious to children than to sit long in one position without moving. But upon no point do opinions vary more than *upon the branches to be studied.* Most men have an opinion of their own as to what is highly practical, and what simply theoretical. In general, men draw their notions of what is practical from their own occupations and their own experience in them. Thus, the *clergyman* will urge his son through a course of classical study, and will tell you that nothing is more highly practical than classical learning. The *lawyer* will suggest a thorough course of history, ancient and modern, and particularly of constitutional law, really believing that there is little practical out of litigation and politics. The *physician* attaches the highest possible importance to natural science, and values little else. The *manufacturer* deems mathematics and chemistry of the greatest consequence. The *merchant* looks hopefully at his son, and remarking that he designs shortly to place him in charge of his own business, enjoins upon you particularly to burden him with no study at the expense of his Arithmetic. The *agriculturist* states that his intention is to make a plain farmer of his boy, and therefore it will not be necessary for him to learn Grammar and Geography and History and all those "*big studies*." The *Collector of the Port* or the *officer of the Custom House* desires you by all means to take care that his son is well instructed in the modern languages, adding with a knowing look, that a German or French scholar can get good berths and "fat salaries" in these days of immigration and rapid intercourse of nations. In short, it is certain that many men have no comprehensive and truthful views of the nature and objects of education, but are content to limit their reflections and observations upon it to the narrow sphere of their own visible horizon.

In the mean time, how does the instructor stand amid this grand *melêe* of opinions ? It is clear, that like the weather-vane, he will veer with every changing breeze, unless he has a mind and a judgment of his own. It is the duty and the interest of a teacher to be perfectly respectful to his employers, but he is manifestly unfit for his office, if he does not make it his business, by careful inquiry and meditation, to ascertain for himself what sound education is, to form fixed opinions of his own in reference to schools, modes and subjects of teaching, upon which he can stand with firmness, and which, if called upon, he can defend with sufficient ability to insure for them a respectful hearing.

It will be necessary in order to reach the object of present inquiry, to ask

First ;—WHAT IS EDUCATION ?

Secondly ;—WHAT ARE THE OBJECTS OF SCHOOL INSTRUCTION ?

Thirdly ;—BY WHAT CURRICULUM CAN THESE OBJECTS BE BEST ATTAINED ?

What is *education ?* The word itself is full of significance.—*Education*, from the Latin "educo," signifies *drawing out or development.* Very erroneous views of education have prevailed among the masses, and do prevail now to a greater extent than even many thinking men are perhaps aware. Development implies *something to be developed.* Now education is manifestly a process of development. As Minerva is fabled to have sprung full armed from the head of Jove, so the child springs into being, invested with a complete outfit of rational faculties, which enter, immediately, *with or without guidance*, upon a process of development. *To promote that development, to guide it to profitable and useful results*, is the work of education. In practice, however, the child is too frequently regarded as a passive thing, to be shaped and moulded at will, and according to the discretion of his parent or teacher. His head is a hollow sphere, to be filled with learning. He is the best teacher, who can put most into the boys, and those who have the charge of children are not unfrequently heard lamenting the stupidity of certain pupils who are so dull that they can beat nothing into them. There is a great difference between the idea of *filling up* or *impleting a hollow head*, and the idea of *rousing into action*, and *making the child conscious* of the powers which are its own glorious birthright. Inconsiderate men, who do not know what education is, do immense and irreparable mischief by their industrious efforts to take their scholars over many pages and subjects in a short time, supposing that the more they commit, the sooner they will be *filled up.* The general popular notion sustains such teaching, and the people clamor for the man who can *put the greatest amount of learning into the children in the shortest time.* If, however, there be any force, any appropriateness in the term "education," as applied to a work performed upon the child, it denotes the unfolding and bringing into exercise of all his powers, and, in its comprehensive sense, we consider it as the course of development to which the whole being is subjected by all the various influences, good or evil, kind or unkind, judicious or injudicious, which are brought to bear upon it during the life of the individual from the cradle to the grave. Each of these influences is an educator, though some of them educate in one way, and some in another. If we give credence to the plain doctrine of scripture, supported as it is by our own observation and painful experience, the natural bias of the man is evil, and therefore all his faculties, physical, intellectual and moral, are more liable to be affected by perverting than by healthful influences. If we should leave our children without instruction or restraint, we should soon find this out to our entire satisfaction, much as it would be to our sorrow. If our youth were left without the usual healthful influences that are exerted upon them in the family, the school, the church and society, we might reasonably expect that in most cases the indolent, the low, the vile, the ignoble and selfish, the passionate and cruel would thrive, instead of the pure, the generous, the amiable, the spirited, the exalted. It is, however, unnecessary to extend these thoughts, and the end we had in view in indulging thus far, will be answered, if what we have said impresses any one more deeply with the conviction that his child is not a *passive thing*, exposed to no real, positive injury, if left altogether without training, but an *active*, *thriving*, *vigorous* being, instinctively seeking aliment for *mind* as well as body, and quick to appropriate what is morally or intellectually innutritious or even poisonous, if kind and studious care be not taken to supply healthful food as rapidly as its craving appetite may require.

But now *what is the end or object of school instruction ?*

The ever ready, but somewhat vague answer is, "to prepare the pupil for the proper discharge of the duties of his future life." If this answer be correct, the work of school instruction is a work of great latitude and immense importance. The duties of the man will be to himself, to his family, to his neighbor, to the immediate community in which he lives, to his country, to the world, to God. It is enough, however, for our present inquiry, to say that a great object of this instruction is *to develop the intellectual strength of the child, and to furnish him with that "knowledge," which "is power."* We shall be aided in this inquiry also, by considering the original force of the word "instruction." The Latin "instruo" means "to build upon." It is a most appropriate term in this connection. It implies a foundation on which a superstructure is to be reared. We may hence derive the idea that the work of sound instruction is a *solid* work, resting on a foundation ; a *gradual* rearing, brick after brick ; an *orderly* process, commencing at the foundation, and working upward. We can begin it neither at the top, nor at the middle, nor at any part except immediately upon the foundation, and every brick *must* rest solidly upon a brick beneath it. When we begin the work, we have no building ; we do not reasonably expect one without the labor and toil of a *gradual*, *orderly* process; in obedience to the laws of nature, which forbid the idea of sustaining an edifice in mid-air without any basis. In commencing to instruct a child, the foundation on which we are to build, is *his natural capacity to be instructed.* If he had not this, our attempts would be idle. This is the basis on which we are to build. We do not regard the child as knowing every thing, but on the contrary, as knowing nothing. By the provisions of a beneficent God, time is allowed us, ample for the work required. It is not our duty to ask, when we receive a child at ten years of age, "What course of treatment will best qualify this boy, or this girl for any special office or vocation in life." We can not foresee what course his future life may take. We reflect that we have a limited time assigned us to do a work for him. At present he is a child. The time will come when he must enter into manhood. What is the difference between a man and a child ? It is not that the man has faculties, the child none, but that the true man has become *conscious* of his mental endowments, has learned their power, and become skilled in the exercise of them. We know that our business is to discover to our pupil his intellectual resources, to excite his powers to profitable exertion, to get him upon a track of thought, and draw out the dormant energies of his soul by stimulating him to inquire, to think and carry on processes of thought for himself. One of the objects of school instruction is *to teach the pupil to think for himself.* In its earliest years, the child is a slavish imitator, and for want of proper training, many who have good natural powers, remain imitators and servile followers of others during their whole lives. Man's relations to himself and others are of such a nature as to require that he should do his own thinking. Therefore it is our work to teach the pupil, by every method that fertile ingenuity can devise, to do this. Our first effort must be to awaken a spirit of inquiry. Until we succeed in doing this, it is futile to attempt any thing else, and we must delay here, no matter how long the work may require. No matter what amount of labor may be spent in impleting children's heads, no matter if they are conducted through large treatises on Arithmetic, Grammar, Geography and Philosophy, unless their understanding is taught and keeps pace with the process, the whole is simply mechanical, and at the end of five years, what they have gained in facts will not be equal in value to one principle understood. The study of principles disciplines and strengthens the mind. They are the foundations of all solid learning. Assuming these as the starting points, the mind may boldly launch forth in any direction, and become enriched by its explorations. Strengthened and invigorated by habitually systematic courses of thought, it may discover new principles, and perhaps even new sciences. No weak, puerile mind ever yet originated any thing of value to its possessor or others, except by accident. And how few minds are competent for really great things! You might put a man under each apple tree in the Union, and who would think of the cause of an apple's fall? Yet one mind thought so severely upon this common occurrence, that it discovered the law of gravitation, and solved for all time questions which had agitated the wisest men of previous ages. It was the operation of a vigorous, thinking mind upon a well known principle, that led to the exhumation of this glorious western world from the concealment of ages. What do we not owe to the working of strong mind upon principles! To an experiment made not half a century ago, we are indebted for the fact, that every river in the civilized world teems with magnificent palaces, that "walk the water like things of life."—And what shall we say of him that tamed the lightning, and taught it to obey his high behests? The fairy of Shakspeare could "put a girdle round the earth in forty minutes," but here is a news carrier that out-travels thought itself! These men and many others whose names might be mentioned, were independent thinkers. They had disciplined minds, minds habituated to active, persevering inquiry, to masterly grappling with thought. To train up a community of independent thinkers, then, is a main object of school instruction. These are the only men who produce important results. If the independent thinkers of a community are but one in five hundred they must and will be the leaders of the whole, from the strict necessity of the case. If this be admitted, it is clear that the business of the teacher is to teach the art of thinking, which is an essential characteristic of true manliness.

But it is also the object of school instruction *to communicate positive knowledge.* And it is a happy arrangement that the only means of teaching children to think is by calling their powers into exercise upon some *subject* or *material.* We present our own thoughts orally or the thoughts of others upon the pages of books, as the *material* upon which their faculties are to operate. A nice discrimination is to be employed in the selection of this material, both at the beginning and at every subsequent stage of the work. Not only do the mental powers expand gradually, unfolding from a condition of great weakness to a majestic strength, but the materials for thought are to be progressive in their character. They must be adapted at every step to the strength which the mind has acquired, and as far as possible, it seems to be proper, that in every advance, the new thought should have a clear connection with, and arise naturally out of the former. There are indeed innumerable distinct processes of thought, but in any one process, the operation of the mind is regular and progressive, and each successive thought in the course arises out of the former by the law of association. It would be impossible, we think, to omit certain steps in any course, and after all reach a clear result. This ought to be and is understood by the teacher, who is so often subjected to serious inconvenience by the absence of a pupil at a time when he is calling the attention of his class to some important principle in a science. Every day illustrates this point most painfully in the best regulated schools in the land. Let us give an example. The time has come in the regular course of a fine class in the study of Grammar, when the teacher is ready to illustrate the subject of *case*, the various relations sustained by the noun in the sentence. He has an attentive class, all ready and eager to hear what he may have to say. The hour is that regularly allotted for the purpose. All is in order. The class is happy to meet the teacher—the teacher, the class. He is interested in the subject, understands it himself, explains it clearly and distinctly to the boys, and satisfies himself that they all understand it before he leaves them. At the close of the exercise, he assigns a number of sentences for the next day, and directs them to ascertain the case of every noun. When the hour returns, the class, all cheerful and bright, are in their places. The work is commenced. The duty assigned has been well performed, and the recitation is progressing finely, when a boy, as bright as any in the ranks, but who had unfortunately been "*out of town*" the day before, asks, "Mr. A., if you please, Sir, what do you mean by *case?* I never heard of case, Sir." The instructor may be pardoned for feeling slightly vexed, though he would be a simpleton to show it. He attempts to explain in the fewest possible words, for he can not retard the whole class by devoting as much time as before to the same work, and the consequence is, that the unfortunate boy's subsequent course will not be as clear as that of the rest, unless the breach is filled by extra labor. Again, what progress will the boy at school make, if he is allowed to omit Simple Multiplication?—

Or what in his Mathematical course, if he leave out altogether the study of Arithmetic ?

But why should we multiply illustrations ? We have asserted that an object of school instruction is to impart that knowledge, which is power. We have endeavored to explain our meaning at some length. In brief, it is this. The boy has that *knowledge*, which is *power*, when in addressing himself to the consideration of any subject, he finds that he is furnished by previous training and acquisitions, with strength of mind and knowledge of principles adequate to the work he is about to undertake. And this is the only sense in which knowledge is power among *men*, when proper training and acquaintance with principles (no matter whence derived) render them competent for, and equal to the duties and emergencies which arise out of their various relations in life. Who has not seen and felt the power of mind equal to great crises ?—Such a mind had our own loved Washington, whose mere name, at this distance of time, is charm enough to wake the burning zeal of millions in behalf of freedom and of human right. It lives in every fitful echo that slumbers in our hills and vales, and the free air of America is vocal with the hallowed word. Such minds had our Webster and Clay, who swayed senates at their will, awed tyrants and their minions into deference and respect, threw broad sunlight on complicated and difficult questions of national policy, and caused the hearts of a liberty-loving people to throb and pulsate at pleasure, and often to vibrate far and wide in enthusiastic response. And shall we forget the tribute that is due to those noble men, whose wise, dignified, and resolute counsels paralyzed the arm of monarchy, put forth to crush the growing spirit of a people that were born to be free ? Well trained mind is power. To furnish it is an important object of school instruction.

We have now reached the inquiry *By what curriculum of study can the objects of school instruction be best attained ?*

We think the previous reflections will aid us in the consideration of this vexed question. We must recollect that we can undertake no study with a child, unless he has already that amount of *power* which he needs to commence it. If any study must be conducted *mechanically* and not *understandingly*, we are too far in advance, and must recede until we find that place in the course where the understanding was left behind. No matter how old the child may be, every exertion spent upon him will be lost unless we go back to that point. And here the teacher has place for inflexible decision. If he is a man of judgment, no solicitations of indiscreet parents, no false shame of adult ignoramuses can move him to throw away his labor here. The child comes to school, furnished with a certain amount of *power*, natural and acquired. He is naturally invested with external senses and mental faculties, and has learned how to use them, to a certain extent, through instinct and imitation. Take again our boy of ten years. He has been taught to read, and has acquired some use of, and acquaintance with his mother tongue, though the teacher knows, as well as any one, how imperfect that use, and how limited that acquaintance, in most cases, is. How this power which the child brings to school is attained, is not now the object of inquiry. It is enough to say that it is all he has, and we cannot put him at the investigation of subjects that require *more*, until he has gained more by taking the intervening steps. Abstract thought cannot reach him, because it has no basis in his past experience to rest upon. Every proposition at first must reach him through the medium of his external senses, and his memory is the first internal faculty that can be exercised. You must *begin* with that which you can demonstrate to his eye and ear. He will have exact thoughts about houses, horses, wagons, fields, brooks, &c., but you have no right to expect him to comprehend you when you talk of the infinite divisibility of matter, or the careering of the planet Neptune through boundless space, unless you can bring some kind of demonstration. And if he does not comprehend, he will not be interested, and will not remember what you have told him. And if you are irritated when you find that he has forgotten, you will manifest a want of good sense. A child will remember about a horse for ever, because he has seen one, and if you can succeed in making his understanding take hold of the subject in the same way, he will remember with equal interest what you tell him of inertia, gravitation, cohesion, electricity, &c. &c. If this is not so, then we must go back over the observation and experience of years, and unlearn all we ever learned. It is clear from this reasoning, that the proper branches for our boy of ten years are those which are least complicated with other branches. We may stimulate a spirit of inquiry into the causes of things as early as we please, but it would be the height of absurdity to ply him with the science of Mechanics before he has learned the simple rules of Arithmetic, because the former involves the latter. There is a want of power here, and we must go back. Go back to what? To the study of Arithmetic. But, that we may not unnecessarily protract this argument, we ask thinking men to reflect,—What science does not require in a greater or less degree a ready understanding of Mathematics? A *smattering* of science may be obtained, it is true, with a very imperfect knowledge of this fundamental study. But what we want is, not merely a sickly vegetation of the intellect, but a healthful, vigorous development. We want men, whose thoughts upon any subject will be productive, not of barren, but of useful results. The study of Mathematics involves no other study, though it is involved in almost every other. It is progressive, each successive step arising immediately out of, and being an easy deduction from the preceding. This is just the study that is fitted to train to habits of systematic, regular, connected thought. Mathematicians acquire a habit of reasoning not only, but a habit of seeking for demonstrable truth, which in all *human* affairs (I must except spiritual truth, which never, in any case, enters the mind, even of the most astute logician or profound reasoner, except by direct spiritual communication) is the only fit nutriment for the mind. The study of mathematics is one of those which may properly, and must necessarily begin not only, but form a prominent part of the whole course. It will meet the views which we have given as to the objects of school instruction. It will discipline the mind, and start it upon processes of thought.—It will suggest one inquiry after another, and thus, in a most lively manner, invite the mind to explorations which will furnish it with useful occupation, and develop effectually its own great resources and strength. But why do we dwell upon a point so generally conceded as this? Few would deny what we claim for Mathematics. We close this point therefore, by remarking that this branch of study is too often neglected by children at the request of their parents, who will find out their error when it will be too late to apply the remedy.

We shall now say and endeavor to prove that the study of language is *the* other great and all important part of the preparatory course. Now we are upon controverted ground. We claim that language takes the precedence, in some respects, even of Mathematics as a primary study. If we do not think so, why are we so anxious about children, who give promise of remaining mute?—Man might think for ever, and he would be an intensely selfish and useless being, if he could not communicate his thoughts. Yes; even more—it is certain that our best thoughts are suggested by communication; that without it we must have but few thoughts, and those few of little value. Many have asserted, and there is much reason for believing that we *think in language*. It is the exercise of the teacher's mind upon the minds of his pupils, carried on through the medium of language, that does the greatest part of the work of school instruction. There can be nothing more practical than language. Not a waking hour passes with any individual, that does not bring it into active requisition. It is employed in the school in the communication of all other knowledge, and just in proportion as the pupils comprehend and appreciate the full energy of the language used, do they receive with clearness the idea to be conveyed. It is therefore of the greatest importance that they should enter forthwith upon the study of language, the most potent and primary of all agents in effecting the changes that take place in the moral, intellectual and material world. The men engaged at the building of the tower of Babel were not only foiled in their attempt by the confusion of languages, but were actually dispersed over the whole known world. Language is the tie that binds society together.

But the disagreement is not exactly here. All are agreed upon the necessity of language, and of an ability to use it with intelligence, strength and fluency. The great question is, what language or languages are necessary and of primary importance in the educational course ? All our daily conversation is in English. All our instructions are given in English. Is it necessary to learn any language but English ? Is it necessary to learn any language not now spoken ? We can even see something practical in learning the French, Italian, Spanish and German, but we ask with emphasis, where is the utility of learning Latin and Greek ? This question is well put, and deserves to be answered. Our answer is, that if the confinement of the pupil's attention to the English alone does not materially circumscribe the domain of his thought, if it does not put a painful check upon that very spirit of inquiry which we design to excite, if it does not deprive him of a most valuable mental discipline, if it does not materially lessen that knowledge which is power, if it does not injuriously affect the mode, the facility and clearness of his expression of thought, then are we henceforth prepared to abolish the study of the Classic Languages. But the case is not so. The student can not address himself with success to the study of English and the other modern languages named, because he has not the requisite power, which we have shown to be so important in the undertaking of any study. The modern languages are part of an advanced superstructure. In every purely English study, whether it be of the language itself, or the natural sciences, the very spirit of investigation and inquiry, which you have awakened, and which it is a main object of all instruction to awaken, will lead the student of his own judgment to recede farther and farther in his inquiries. The modern languages do not contain the key to themselves. The inquiring boy can not avoid seeing and feeling that he is off a solid foundation. He takes up the study of common Arithmetic. As in duty bound, you tell him the word "Arithmetic" is from a Greek word, meaning "number." He goes on and meets with the words "Addition," "sum total," "Subtraction," "Minuend," "Subtrahend," &c. You tell him these words are all Latin, that "e-n-d" in Latin means "to be," as, "Minuend," *to be* made less, &c. Still farther in his course, he meets the word "Mathematics." He is told it is from a Greek word, meaning "learning." You introduce him to Philosophy, Chemistry, Astronomy, Botany, Mineralogy, Metallurgy, with all their technical terms, as Pneumatics, Hydrostatics, Mechanics, Acoustics, Optics, Magnetism, Electricity, &c. You tell him these are all Greek, and you will find that he will not doubt your word in the least, as they appear decidedly Greek to him. His spirit of inquiry has met with an insuperable obstacle. No energy or perseverance will help him, because he is not furnished with the required power. He commences the study of his own language. Again, he is met at the very threshold by the words "Grammar," "Orthography," "Etymology," &c. Again he is told these words are *Greek*. He sees himself that Greek and Latin lie back of every thing, and tired of being baffled in his researches by a *want* of Greek and Latin, he asks of his own accord, Why then don't I study Greek and Latin? Then I can have as my own this whole fund of knowledge of which I see the indispensable necessity, and which is now disputing every inch of progress that I attempt to make.

But can we not make use of certain expedients that will somewhat relieve these difficulties? At any rate, we can do something. We can make Etymological Dictionaries, which give the sources of the words. But let me ask whether we do not confess, by admitting their necessity, that a knowledge of the root languages is indispensable; and again, whether the very work of studying these systems is not in itself, as far as it goes, a meagre course of classical study; and still again, whether it will be for the good of the boy to train him to habits of investigation so superficial as this process must necessarily be? It is certain that a bright and thinking boy will ask again, Who made this dictionary, and where did its author obtain the knowledge requisite for such a work? You must tell him he studied Latin and Greek. Then he will say, "I also will study Latin and Greek, that I may not be compelled to beg every mouthful of intellectual food that I require from dictionaries made by others, but may have a store of my own from which I can draw, as my necessities require." It will be the same with all other helps. We may use systems of analysis, books of prefixes and suffixes. We may say, *con* means "together," *re* "back," &c. The student will go behind all these, and ask "What do you mean by the word *Analysis*? "We tell him its origin, and derivative force, but we produce no other effect than to make him feel even more deeply than before, his want of the Greek. Supported by long experience, I deliberately assert as my settled conviction, that though in rare cases, mere English scholars make great attainments in the understanding of the English language, yet ordinarily, a want of the Latin and Greek is fatal to the acquisition of sound, accurate and comprehensive learning. I shall be met here with the examples of many men, who never enjoyed the advantage of classical study, and yet distinguished themselves by their power in the use of language. The case of Mr. Clay is always cited in this connection. Now I deny that Mr. Clay was not a linguist. That he did not acquire his classical learning in the ordinary way in the schools, I of course admit. But the indomitable spirit of inquiry for which Mr. Clay was so remarkable forbids the supposition that he did not adopt means to acquaint himself with the derivative force of words. If he did not do it in the usual way, he took other means to do it by an assiduous use of those roundabout substitutes which can do very little for any one without the natural turn for language and the invincible industry which Mr. Clay possessed. Hon. Joseph R. Chandler, for so many years an editor of the highest repute, himself said, that when he entered upon his editorial career, he knew nothing of the ancient languages, but became, after a few years, from the very necessities of his vocation, a good Latin scholar. And if any one will say that he has not been circumscribed by a want of acquaintance with the classic languages, we shall say that he may have done well without them, but he can not have a remote conception how much more he might have done with them. Some men, without school learning of any kind, do marvelous things, so that we are led to wonder what they might have done if they had enjoyed that advantage. So some men make such great attainments in the use of language without the drill of Latin and Greek, that we may well wonder what they might have been with it. We may safely assert, and that without the least violation of courtesy, that no man who is not a classical scholar, has a right to deny the utility of classical study and classical learning, because in this case he has not that power, which we have shown to be necessary to qualify for the consideration and decision of any given question. No teacher who has a school composed in part of classical students, can have failed to observe how much more readily he can convey an idea to them than to the others who study English alone. By reminding them of the derivation of a technical term, they take its force in an instant, and are animated with a desire to know all that can be said in relation to it, while it never can be any thing more than an arbitrary sound to the others, and fails to inspire them with similar emotions. He can have very little experience as a teacher, or can have availed himself of this power to a very limited extent, who can not respond with all his heart to this statement.

Again, persons who have not been in the way of observing, can have no estimate of the influence which a knowledge of the original languages exerts in the formation of correct orthographers. One of the best and most experienced instructors we ever knew, on hearing a number of common school teachers fail in spelling at an examination, remarked that it did not surprise him in the least, and said he did not see how it is possible to be a good speller without some knowledge of the ancient languages. We shall not decide as to the literal truth of this judgment, but certainly the remark has great force.

Classical learning is an indispensable element of that knowledge which gives power to the individual, addressing himself to the examination of *many* subjects. It is certainly power to him who undertakes the study of the French, Spanish and Italian languages, for they are mere dialects of the Latin, and may be acquired by the proficient in the original in far less time and with more ease and finish than by others. The Latin lies behind them all, and contains the *power*. It is suited to begin and form a prominent part of a course of study, because nothing lies behind it. Its power is in itself.

Besides, the study of language is not inferior to that of mathematics in developing the powers of ratiocination. The finest and most effective mental discipline is furnished by it. We do not know that it is necessary to enlarge upon this point, as it is usually conceded. If language is a philosophical structure, and not an arbitrary collection of sounds, the study of its analysis must be a process of reasoning, and must call the reasoning powers into exercise. The simple work of classifying the letters of the alphabet requires the study of the organs used in their utterance, and is in itself a philosophical investigation. The general classification of words, together with their various modifications, and the relations which they sustain to each other in sentential construction, can not fail to teach the laws of thought, because with these laws, the laws of expression must correspond. Thus the study of language is the study of mind. Language may be compared to a visible canvas, upon which every mental process is distinctly reflected. While language, and cléar language too, is certainly indispensable to the study of the natural sciences, which could by no means be developed without it, it goes even farther, and taking up thought where the physical sciences leave it, peers forth into the regions of the metaphysical, the immaterial and the spiritual, opens fields invisible to the eye of sense, and qualifies the mind for the study of its own nature and operations. We can never study what is not in some way revealed for our examination. Now the operations of the mind are distinctly reflected upon the language we use, and before this great master portrait, we can sit and study every stroke of nature's pencil at our leisure. The operations of the mind are distinctly pictured before us, and will submit to severe and rigid analysis. If this is not work for the reasoning powers, what is? And if it is not work that exalts and elevates man, what can be? Here is a domain of thought, limited by nothing except by the defects which actually exist in language. To the individual, it is open just as widely as his knowledge of language extends. Beyond this he can not go. His range is circumscribed. The more we reflect, the more strongly we shall be convinced that language is as necessary to enable one to understand his own mental operations as it is to enable him to understand those of others, and that it is very doubtful whether any severe or important processes of thought could ever be carried on without a medium, by which the mind can keep distinctly in its own view the picture of its successive steps.

But it was not our design to introduce much of metaphysical argument. The great point is, that processes of thought discipline the mind, that they can not be conducted or understood even by the thinker himself without language, and that their strength, clearness and value depend upon the power of language. If an individual, who has no organic defect, expresses his thoughts obscurely, we may be sure his own mental operations are not clear to himself. The study of language is, therefore, conducive as much to the formation of clear and strong thinkers and intelligent auditors as it is to the formation of clear and powerful speakers, and the more extensive the survey that is taken of the field of language, and the more pains that may be taken to lay hold of the force of words through their sources and roots, the more fully this desirable end will be reached. This discipline of mind effected by the study of language is a strong argument in its favor, inasmuch as mental discipline is one of the main purposes of school instruction.

But one more question. Is language in itself a teeming source of thought, fertile of itself in the production of enjoyment to the student? This is a point that deserves to be noticed. Thousands of words contain storehouses of thought and knowledge in themselves, even when out of combination, and reward him who traces them to their source, by revealing to his delighted mind worlds of living light and beauty. The study of words is not a popular pursuit, and many men use them with an entire unconsciousness of their deep significance and power. They employ them in their daily intercourse, but have not the most distant suspicion of their tremendous latent strength and expressiveness. As one who walks upon his field, is none the richer for an exhaustless mine of gold that lies, unknown to him, beneath his feet, so he, who is content to restrict his conception of words to the narrow limit of present acceptation, traverses a surface beneath which lie, hidden from his sight and unexplored, mines of mental wealth, diamonds of dazzling brilliancy, "gems of purest ray." The language which he is constantly using, subserves a common purpose, and he could not dispense with it, but for aught more, it may be compared to an uncultivated tract of land, covered with deep soil, containing within itself generous nutriment in abundance, and ready, in return for labor, to send it forth into the seed, the germ, the plant. Dull as the study of single words is regarded by many, it is certainly true, that the ideas of most men are greatly limited by their failure to investigate and lay hold of their full derivative force and energy. And if these shackles could be thrown off for a time, they would walk forth with a freedom, which was before unknown. A new creation would spring up before them, and a boundless domain of thought, that would furnish inexhaustible sources of gratification to the mind. But no caprice of destiny will reveal this world, teeming as it is with light and instruction. Like the gold in the mine, like the luxuriant richness of the soil, it is to be made available by indomitable industry alone. It can never be gained without a systematic, persevering course of classical study.

We remark farther that language has kept pace with ideas, and that every idea that was ever entertained by a man able to speak, has been thrown upon this great canvas. It has, doubtless, kept a faithful record of every mental operation from the creation of man till the present, and the language which remains extant preserves to us, as far as we can penetrate its sources and lay hold of its original, all the ideas of those who made use of its primary elements. If it were in our power to obliterate language or any portion of it, we could and certainly *would* efface for the present every idea which it embodies and might very easily consign to oblivion sciences now in an advanced stage of development.

Language is a splendid fabric, with rich beauties and extensive capacities. Far more than merely fascinating, it is in the highest degree practical, contributing to the comfort and enjoyment of life. Very true indeed it is that mercantile, mechanical and agricultural pursuits may be followed without a knowledge of language, and to some extent without an acquaintance with mathematics. Men do not lay railroads or excavate canals with language. They do not build steamboats or telegraphs, lay stone walls or pave streets, plant corn and potatoes, hoop wheels or shoe horses, make cabinet ware or take daguerreotypes with language. Yet no science whatever develops the mind to a greater degree of strength, and none, in its place, furnishes men with more extensive and unfailing resources for usefulness and enjoyment. So far from being a vast chaos of mechanical and arbitrary sounds, the structure has been formed by processes of the closest observation, the liveliest fancy, the severest reasoning, and the deepest philosophy. And he who takes it in its perfect state, and applies himself to its analysis, will subject his mind to the most profitable discipline, will develop and strengthen his powers of ratiocination, and store his memory with a treasury of historical and scientific facts, since there is nothing more certain than this, that language has faithfully recorded the progress of the arts and sciences, and that the history of men, of politics, of nations, of changes physical, intellectual and moral, lives in and is impressed for all time upon the words we use.

If after what has been said, it is still insisted that undue prominence is given in our educational course to the study of classics, and that other branches suffer in consequence of the great amount of time spent upon this, we answer, that if Mathematics and the physical sciences suffer at all in our system, the loss is not occasioned by the devotion paid to the classic languages, but manifestly by a *want* of devotion to *any thing*, by an unpardonable waste and trifling away of time. There is not time enough spent upon the classic languages to detract at all from what is due to other subjects. I shall be borne out by those who know, in the assertion that the majority of college students do not in four years, spend altogether as much as one year in severe study of the classics. Many fall far short even of this. If all our college graduates had really devoted themselves with laborious and persevering zeal to the study of the ancient languages, we should have too many living illustrations of their utility to leave room for the question now under discussion. Why are our graduates supposed to have given so much time to language at the expense of their mathematics? Is it because they give evidence of it in their extensive classical attainments? How many of them know anything about language? And why is it that they are not said to have cultivated the mathematics at the expense of language, as it is well known that the mathematicians largely outnumber the linguists? Here is a mystery that needs to be solved. The hosts of splendid American linguists, who have caused loss to the departments of Mathematics and Physical science, by giving so much time to classical study, will have to be produced, before this ground can be maintained.

One or two points remain to be briefly touched. It is asserted that good Classical scholars are never good for any thing else. It is enough in reply to breathe the names of Webster, Choate, and Everett. This country has not produced a large number of very eminent classical scholars, but a host of English names could be mentioned to refute this assertion. It is true, that men who become passionate lovers of classical study, frequently choose vocations which permit them to indulge their favorite taste. This is equally true of devotees to other branches. Nor, if it were otherwise, would this exclusive devotion to classical pursuits prove that the study of language disqualifies a man for any vocation whatever. There can be no doubt that where there is no extraordinary attachment to one branch, which leads the devotee to cling to it exclusively, all the attainment in language that can be made tends to fit more fully and effectually for any calling that he may select.

We think a direct answer may now be given to the query whether the condition of the schools is to remain without change as it was in the time of our ancestors; whether the progressive spirit of the age is not to leave its impress upon them. They *are* making progress. That progress however, does not consist in a change of curriculum. If the present course of study ever was wise, it is wise now. The objects of instruction are the same as they were. We do not generally train boys with a special reference to any one vocation now more than formerly. We propose to ourselves the same ends in instruction which were proposed by our forefathers. If the system progresses at all, it is owing to truer and sounder views of the nature of education, the substitution of clear, analytical processes of teaching in place of the blunting and senseless practice of *impletion.* The materials used are not changing, but the modes of using them are improving, and in this respect, the march is onward and forward. The importance of a full, comprehensive course will be generally acknowledged as soon as it is admitted that the object of study is, not to fill a cavity in the head, but to discipline and strengthen the mind, to excite thought and to stimulate inquiry, to give that knowledge, which is power ; that courses of study are valuable just so far as these ends are answered by them, and no farther. Then boys will study language, though they intend to devote their lives to farming ; mathematics, even when they have determined upon a professional life ; history, though they have not the remotest intention of entering the political arena ; chemistry, botany, geometry, astronomy and navigation, though they have no idea of becoming physicians, surveyors, almanac makers or sailors. Boys will be put to study for the development of their natural powers, for the cultivation of their noble faculties, that they may become men of accurate scholarship, of extensive and varied information, of thoughtful and investigating habits, of keen perception and discriminating forecast, of shrewdness to detect the intentions of interested, selfish men, of courage and ability to stand as defenders of the public weal; in short, of that thorough and comprehensive knowledge, which is *power.*

I feel that I ought to close this paper with an apology for its great length. Those who know what an art there is in condensing thought, will understand me when I say, that amid the numerous duties of a laborious profession, I have not found time to make it shorter. The subject is boundless. The course of study comprises many other branches, and I am not disposed to attach an undue value to any of them. The main object of the paper, has been to refute an idea prevalent in the popular mind, that the study of the ancient languages is not practical, that much time is thrown away upon them, and that they ought to be laid aside in order to give more room for the mathematics and physical science. If I have succeeded in awakening the convictions of any in favor of my views, or have been so happy as to give any impulse, however feeble, to the noble cause of classical learning, I shall feel that I have an ample reward.

III. b. DISCUSSION ON CLASSICAL EDUCATION.

The Discussion of the subject of Mr. Cole's paper being in order:—

Mr. Greenleaf remarked;—As I have but two or three thoughts to offer at all, I will throw them out at the commencement. The first that has struck me, is the entire feasibility and practicability of any man who chooses, of any age, becoming a classical scholar. It is within my knowledge that there are merchants in the city of New York, worth their thousands—or were when I left, and I hope they may be when I return—who surely have business enough to engross their attention, but who set aside a certain portion of their time each day for study, allow me to say, under my own supervision. They do this for the purpose of preventing themselves from being swallowed up by their business; for the purpose of being men, or rather of sustaining their development, and to prevent a collapse from outside pressure. I think it was said by Cato, when caught studying Greek after he was 70 years of age, and asked why he did so, "I am not willing that my little grandchildren should know more than I do." He wished to keep abreast of the spirit of the age.

With respect to Latin being the key to the modern languages, this is literally true. It is the simplest thing in the world for one acquainted with Latin to acquire Spanish, which is, I believe, the easiest language to be learned. The pronunciation any man can learn in two hours. Then there is the French, which is merely a dialect; and there is Italian, which is nothing but modern Latin, as every scholar knows. So that if any one desires to acquire these languages, he can do it at his leisure.

One further remark. The saying is ascribed to Voltaire, and I suppose it accords with the experience of every man who has reduced it to practice, "As many languages as a man knows, so many times a man is he." There are no two views of any one subject that are precisely alike. If one account is given of any thing by one man, a second by another, and a third by another; reading each of these accounts will convey new ideas. Though they may be the same in substance, they are different in fact. There will be two men here to-day: One will go away with new thoughts, with which he will go forward through life; while the other will say that on the whole it is rather a prosy affair. Both heard the same things, but received different impressions. And thus it will be in studying different languages.

Bishop Potter.—With regard to the paper just read, it strikes me that it raises the greatest and most momentous questions, perhaps, that can be entertained, upon the whole subject of education; not only scholastic education, but family, social, and political education, and education in any other relation in which we may choose to consider it. If we look particularly to intellectual education, Mr. Cole has raised perhaps the great question of our day, the question, what is the best instrumentality in intellectual development; and especially, what place do mathematics and the classics hold in relation to what is called the newer learning. I hope that subject will be thoroughly canvassed before we adjourn. No subject connected with the development of mind can be more important at this very time; because it must be remembered that two parallel movements may be made in regard to the subject of education at the same time and in opposite directions; the one palpable to the sight and sense, the other impalpable; and yet the unobserved movement may be fraught with the most important consequences. It is possible that in material instrumentalities, education may be developing; while in what may be called spiritual instrumentalities, it may be deteriorating. We may be building magnificent school-houses, enlarging the number of pupils and teachers, increasing greatly and in the most impressive ways the exterior machinery of education; and at the same time, so far as the true culture of the soul is concerned, we may be retrograding. I think that that is the question which especially concerns the American people, and should attract the attention of the friends of education at this time.

Now in regard to the department of intellect, and the question opened here, and which has been discussed certainly with very great ability in the paper to which we have listened this morning, I suppose that the development of intellectual power is the province of the school. I speak not now of other instrumentalities of education, but the development of mind, of the power of thinking is the work of the schools. We have got that power; and what shall we do with it? How shall it be directed? Shall the schools of our country be employed in the work of making magnificent earth-worms? That is too probable unless you recognize, lying back of the question of developing the maximum of intellectual power, the other question of what is the purpose with which that power shall be inspired; what shall be its aim? I think that the school has something to do with that question; that the school has another function besides that of developing intellectual power. I merely suggest the question now for consideration, having no desire to intrude at this time, but to express the hope that the Association will not adjourn without discussing that question, whether there lie not back of the intellectual function of the school, a still higher function, and one it can reach and perform without touching any controverted questions of belief, as to the Bible, religious training, or any thing of that kind.

Mr. Richards.—There are some thoughts which have occupied my mind a good deal in connection with this subject, more particularly bearing upon the latitude we now occupy. It seems to me that we ought to consider this subject thoroughly, and see where we are to find the foundation stones of this important question. There are some things connected with moral education—without going into the polemical discussion of the question to which Bishop Potter has alluded—which seem to me not to be fully understood, with regard to what may be called moral discipline, and intellectual discipline. Those great objects alluded to in the paper to which we have listened with so much interest, will not be accomplished unless these first principles are understood, these foundation stones found out. What is moral discipline really? What is mental discipline really? At another time, if the Association will allow me, I will state more fully my views upon these two questions.

Bishop Potter.—I understood Mr. Cole to assume in his paper that the grand object of school-training was the development of mental power. There would seem to me to lie back of that, another and perhaps more important object,—the development of moral power, self-control, conscientiousness, the establishment of certain habits which pertain quite as much to the will as the intellect—and that is one of the functions of the school not sufficiently considered at this time. I take it for granted that Mr. Cole in his own mind does not ignore moral training; but the very fact that when we come to write upon the duties of the school or of the teacher, most of us immediately fall off to the intellectual side, seems to indicate that we think more of the development of the intellect than of the development of the heart. Is it not important that the teacher and all who are interested in education should be admonished that there is another and a greater work than that; and a work which is going on in the school, either regularly and under our directions or independently of us; for the school is a great moral seminary, one way or the other. It is a moral training for good or for evil without the eye and direction of the teacher, or else it is one under his supervision, one where all the exercises and discipline of the school are specifically directed towards the formation of character in its broadest sense.

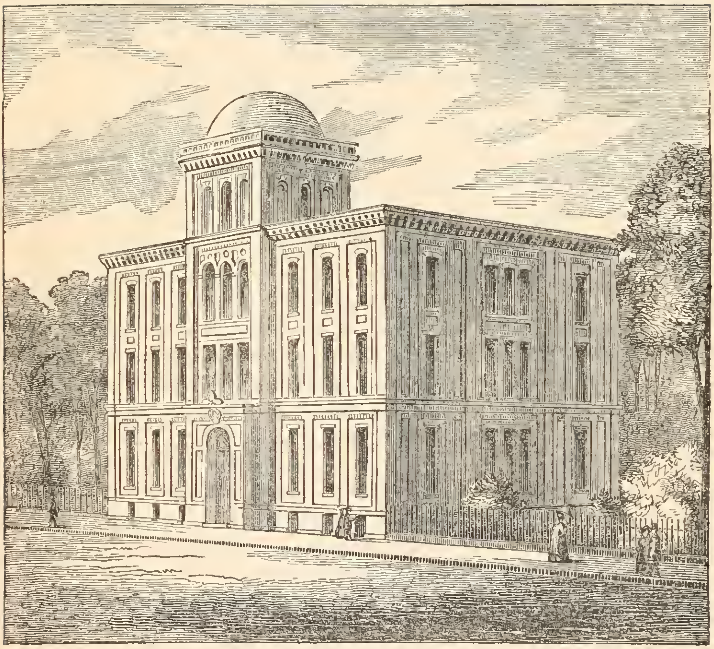
Mr. Cole.—It seems to be necessary for me to say a word in explanation. The paper which I read this morning presents a specific object. I do not undervalue moral education; but the whole object of the paper was to defend the classical element of instruction; and my general remarks upon education were merely intended as the substratum of that defense. In common with other teachers, I am frequently asked the question, What is the utility of so much Latin and Greek? It so happens that it is my profession to teach the classical languages; and for many years I have taught those languages exclusively. Having been called upon, more than once, to defend the classical element of instruction against the popular notion that it is not useful, the whole object of my paper was to meet, if possible, the popular objection, and to defend the classical element against the popular notions. I thought it unnecessary to say any thing of the moral element, inasmuch as it did not bear upon that point. I do not think any member of the Association values moral instruction more than I do, or more strenuously endeavors to give such instruction in connection with his daily teachings.

Dr. Proudfit said, that knowing the opinion of Mr. Cole upon this subject, he had not received the same impression from the paper as that received by Dr. Potter. The question now to be met was, How shall that moral training be brought about? How shall we reach the conscience? How shall we give distinction and efficacy to moral training, combined with mental training? A highly illuminated powerful intellect without the guiding influence of moral principle, all looked upon as a curse to the individual and to the community. The only true morality was Christian life, Christian principle. All practical teachers must have asked themselves the question how they could infuse a Christian life, awaken Christian sensibilities, thoughtfulness, and devotion, in connection with the daily mental training of their pupils. He remembered a remark of the venerable Dr. Alexander upon this very point. Some persons, he said, objected to spending so much time in classical training, to the neglect of moral and religious culture; but he maintained that a conscientious enlightened Christian teacher, in the course of classical tuition, could throw in illustrations and remarks which would make a profound impression; the more profound from being incidental. He (Dr. P.) thought all teachers must have experienced that, and noticed that an incidental remark would often create a greater impression than one which was merely *ex professo*. He referred also to the venerable Mr. Stevenson, a classical school-teacher, who had used various appliances, among others the birch, after the old Scotch fashion, to make his scholars learn. That teacher had united the old fashioned synthesis with the modern analysis; he had obliged his pupils to turn English into Latin and Greek, as well as Latin and Greek into English. He had attained full 80 years of age, and had taught school for at least 60 years; having had the pleasure of seeing vast numbers of his pupils in the pulpit, and several of them in the Senate of the United States, in high judicial positions, professors in colleges, and occupied in various ways in the great work of general instruction and improvement. Every pupil of his must have recollected the occasional, apparently incidental but still very impressive and effectual remarks uttered by Mr. Stevenson in the course of classical education. Dr. P. also referred to a gentleman who had been an eminent scientific teacher in New York, who was in the habit of occasionally throwing in a remark addressed to the conscience and the heart, remarks which he had afterwards the great satisfaction to know were received with great benefit. In the wonderful analogies of language, revealing to us moral and intellectual manifestations no less wonderful than those planetary orbits expounded on the previous evening by Prof. Loomis, might easily be found occasion for allusion to the Divine wisdom displayed in their arrangement. It was a fact that profound learning had many great uses; that classical learning had shed a wonderful light upon the pages of Divine Revelation. Even the verbal coincidences were sometimes very striking, illustrating great difficulties in the Scriptures, or giving expansion, beauty, and clearness to our conception of a Scripture word. In the introduction of Trench's charming little work, "The Synonyms of the New Testament," it was remarked that the words of the New Testament are the elements of Christian theology. These words were sometimes wonderfully explained to our apprehension by a verbal coincidence with the classics. As a single instance, he would mention the word "light." Where our Saviour says, "I am the light of the world," a German commentator says that he calls himself the light of the world because he is the teacher of the world. But in classical authors the same word might be found used in a sense giving infinitely more expression and force to the word. Thus in the Greek tragedy, Medea says, "I put to death, &c., and brought you saving *light*." So Homer speaks of those who broke through the phalanx of the enemy, and gave "light" to their country men. "Light?" It is deliverance; it is salvation, said Dr. P., even to the apprehension of a classical writer; and clothed with this beauty and splendor, it really gives us a far nobler, more impressive, grander idea of the inspired saying, "I am the light of the world," than could be derived from any professed commentator merely sitting down to explain it without reference to the classics.

Here were also very wonderful traditional coincidences, between the facts recorded in Scripture and the Pagan accounts. Going back to the very chaos which the Scripture declares to have preceded the creation of the world, the formless and void condition of matter was described by Hesiod in words most marvelously corresponding. Thus the deluge is described by a Latin poet in words remarkably coincident with Scripture. Horace had spoken also of the bow, fixed by Jove in the sky as a sign; almost exactly in accordance with the words of the Scripture account, "Behold I do set my bow in the cloud, and it shall be a sign unto you." By these fragmentary recollections of original facts which had floated down the stream of time, it seemed to him that we might derive wonderful confirmation of Scripture history. These wonderful traditions in regard to the general deluge, to be found in classical authors, seemed to him no less surprising and convincing than the evidences found in the crusts of the earth. Thus the classics might be constantly used as a means of moral invigoration of the minds of youth. Even the moral conceptions of heathenism were frequently so distinct and so admirably corresponding to the divine revelation as to afford a very striking commentary upon the words of the apostle—"Their thoughts the mean while accusing or else excusing one another." Some had thought that the moral revelations of the heathens were sufficient of themselves; but Mr. Locke had admirably answered that objection to the reasonableness of Christianity, by saying that those moral perceptions were forceless, which had no adequate sanction; and that Christianity, by giving to them an adequate sanction, had shown its absolute necessity. He had thrown out these hints to show how wide was the field of moral illustration opened to the classical teacher, and how easily it might be made to minister to the moral culture of the pupil.

Bishop Potter.—Dr. Proudfit had struck a very useful and very rich vein, which I hope may be illustrated still further hereafter. He has shown how classical education may be made a great means for moral education. He is an old pupil of mine, and I am very glad to hear him recite, and recite so well. To-morrow I shall call him out again; for as a professor of classical education he is bound to show us not only that it is good and useful, but why it is not better. We have known many young men who have been taught the classics in our colleges, and yet can not translate their own diplomas. That being the condition of our colleges—I do not speak of the college with which he is connected, for I have no doubt it is better there—we not only want to know in the abstract that the classics are capable of being employed in that way, but practically that they are better employed in teaching.

With regard to the paper of Mr. Cole, I am gratified that he omitted to speak of moral education, merely because it did not relate to the specific object he had in view. As he seemed to begin at the beginning of education, I supposed that he intended to cover the entire ground; and I therefore regretted that when he spoke of the function of the school, he did not more specifically confine himself to intellectual development. When I spoke of moral training I had not so much reference to moral teaching, as to the inevitable moral effect which the school must have over the child, either for good or for evil. When the school is well taught, and, may I not venture to add, well prayed for, such an institution becomes in itself *per se* a great moral teacher. Every part of the exercises of that school goes into the very soul of the child as an instrument of discipline. It educates him in punctuality; in subordination; in appreciation of others, not merely of the teacher, but of all by whom he is surrounded; in the great art of finding out the relations which he sustains towards those with whom he associates, and the duties growing out of those relations; it educates the temper and disposition of his heart. Hence the infinite importance of placing the school under the direction of a man whose whole soul is trained and developed. As is the master, so will be the school. If the master's whole soul is educated and developed, if his moral and spiritual nature as well as his intellect is cultivated, the consequence is that influences transpire through him to his pupils, every hour of the day; not involved in teaching, but of all influences most powerful because unconscious, and therefore accepted by the pupil as perfectly honest. Reading is regarded, all the world over, as more or less formal; and is not supposed to represent the real *animus* of the man who speaks; but when he comes to act in those thousand minute ways in which the teacher is brought before his school, especially in the operations of the school, then he does show what spirit he is of, and the living example he holds up before his pupils day by day is a great power for good. It seems to me that we shall never duly appreciate the function of the school, until we admit this one truth, that education does not depend so much upon what the teacher says as upon what the teacher is.



CENTRAL HIGH SCHOOL, PHILADELPHIA.

IV. DESCRIPTION OF PUBLIC HIGH SCHOOL IN PHILADELPHIA.

BY JHHN S. HART, LL. D.

The present system of public education in the city of Philadelphia, has grown up from a single school opened in 1818, and conducted on the Lancasterian plan, until it embraced on the 31st of December, 1854, two hundred and eighty-eight schools, under eight hundred and seventy-six teachers, with fifty-two thousand and seventy-three pupils, and maintained at an annual expense of over half a million of dollars. The two hundred and eighty-eight schools were divided into forty-two unclassified [composed of scholars of all ages] schools; one hundred and fifty-four Primary schools; thirty-five Secondary schools; fifty-five Grammar schools; one Normal school for female teachers; and one Central High School, for boys.

The Central High School was established in 1837; but was reorganized on a broad and liberal plan in 1839, submitted by A. D. Bache, LL. D., then president of Girard College. Since that date, its corps of professors, its number of students, and its course of studies has been gradually enlarged until it has assumed in public estimation, the rank, and received from the Legislature of Pennsylvania, the distinctive attributes of a college. Provision is made for six hundred pupils, who are admitted after completing the studies of the Grammar schools, and after passing satisfactorily a proscribed, and rigidly conducted examination.

When the building now occupied for the High School was erected in 1838, the location was comparatively quiet and retired. The extension of business westward, and the heavy drayage that consequently takes place in the neighborhood of the school, have since rendered it noisy and unsuitable for the purposes of a literary institution. Besides this, the building was found to be inadequate to the wants of the school after the increase of its members to four hundred and five hundred students. With a prospect, moreover, of a still greater increase, it became obvious that a new building would be needed sooner or later. Fortunately, in this emergency, the Pennsylvania Railroad Company became desirous of purchasing the premises for a depot, and on the 13th of January, 1853, the property was sold to them for the sum of $45,000. With this sum the controllers proceeded forthwith to purchase a site, and to commence the erection of a new building elsewhere. The lot procured for this purpose is in Spring Garden, on the east side of Broad-street. It is one hundred and fifty feet front on Broad-street, by ninety-five feet deep, having Green-street for a boundary on the north, and Brandywine-street on the south.

The corner stone of the new building was laid on the 31st of May, 1853, with appropriate ceremonies, in presence of the Controllers, Professors, and a large number of citizens. In preparing for this ceremony, the Building Committee removed the corner-stone of the old building, which was laid in 1837. The jar inside was found to contain water, and the documents in a state of pulp.

The present edifice finished, and furnished was dedicated to the purposes of its erection by appropriate exercises on the 28th of June, 1854. The entire cost of the lot, building, and furniture of every kind was about $75,000. The cost of the lot was $17,000.

The building is constructed throughout in a substantial manner, with good materials, and with a main reference to utility rather than ornament, although the latter has not been altogether lost sight of. The walls throughout are built hollow, to prevent dampness; the outside walls and those on each side of the transverse hall have an average thickness of eighteen inches, while those separating the various class rooms have a thickness of thirteen inches. The exterior is built of the best quality of pressed brick. The plainness of the extended façade is relieved by projections and recesses in the line of the outer wall, by a horizontal line of marble work separating the first story from those above, by a large main entrance in the middle, by the cornice, and by the dome of the observatory above. Though simple in design, and constructed in an economical manner, the building presents externally quite an ornamented appearance.

The observatory is built upon two piers of solid masonry. These piers stand isolated from all the rest of the structure, being inclosed within the walls on each side of the front entrance. They are sixteen feet wide by two and a half feet thick, and extend upwards, without material change, from below the foundation to the top of the third story. There they are connected by iron girders, and on these girders the instruments rest. The dome of the observatory rests upon the other walls of the building, and has no connection

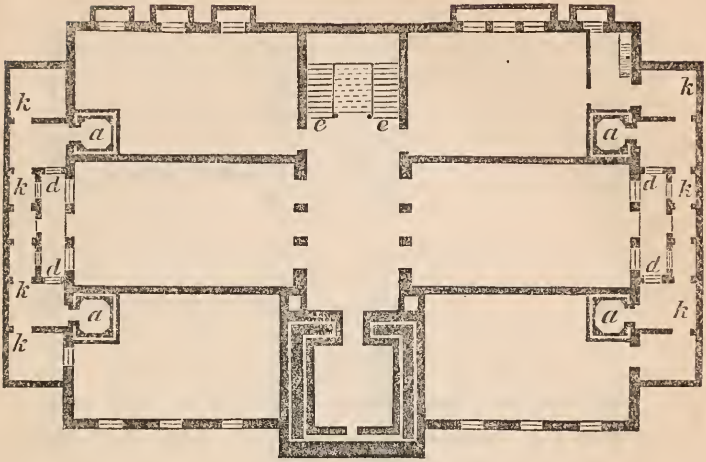


Fig. 2.—Basement.

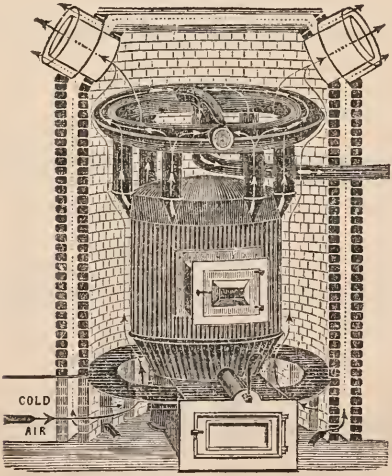


Fig. 5.—Chilson's Furnace.

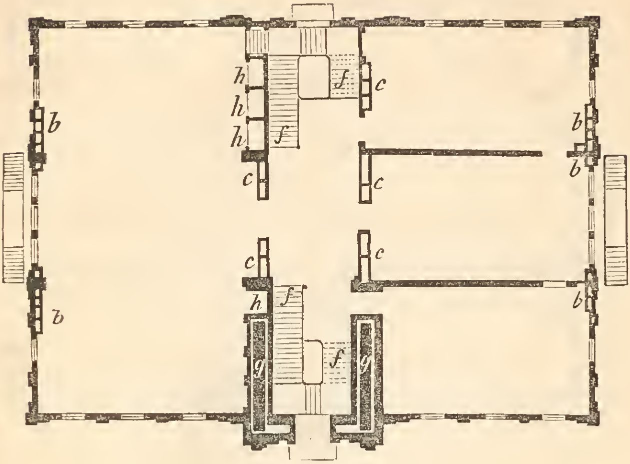


Fig. 3.—First Floor.

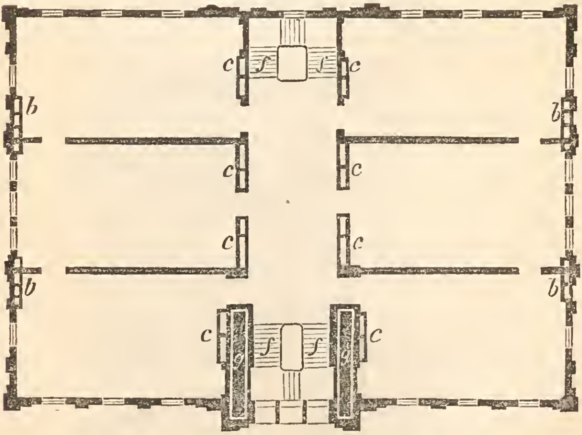


Fig. 4.—Second and Third Floor.

with the piers that are used to support the instruments. The height of the floor of the observatory above the level of the pavement, is eighty-two feet.

Throughout the building, careful provision has been made for light. This will be obvious from the most casual inspection of the plans. The windows are all large, and are as closely placed as a due regard to the strength of the walls would permit. Four out of six of the class-rooms on each floor, are corner rooms, admitting light from two sides. The large lecture-room on the first floor, is lighted on three sides.

There are two main stairways, one at each end of the large hall. That in front runs in a well, from the first floor to the arch of the observatory. That in the rear likewise runs in a well from the first floor to the third. The building has also a double flight of stairs in the rear, connecting the main hall with the basement, a double flight of outside stairs into the basement from each end of the building, and a small stairway connecting the chemical laboratory with the class-room above. The main stairways are all six feet wide, each stair having a rise of seven, and a tread of twelve inches. The door into the main entrance in front, is a folding-door, eight feet wide and eighteen feet high. That in the rear is also folding, eight feet wide and fourteen feet high. The main entrance into the lecture-room is likewise a double door, seven feet wide. The class-rooms are all severally connected by doors, with each other, as well as with the main hall. These doors are all three and a half feet wide. The building thus has admirable facilities for the movements of the classes, as well as for being instantly cleared in case of panic.

The general plan of the building is exceeding simple. It is in shape an oblong parallelogram, fronting lengthwise on Broad-street, being one hundred feet long by seventy-two deep. There are three stories besides the basement. The plan in each story is nearly the same. A hall, sixteen feet wide, runs east and west, dividing the building on each floor into two equal parts; these parts are again severally subdivided by walls running north and south, into three rooms, averaging thirty-eight feet by twenty-two. This gives six rooms on a floor, except on the first floor, where the whole of the north side is reserved for a lecture-room. The lecture-room on the first floor is sixty-eight feet long by thirty-eight feet wide, and twenty feet high, and is capable of seating six hundred persons.

The height of the several stories, in the clear both of the floor and the ceiling, is as follows: the basement story ten feet; the first story twenty feet three inches; the second story sixteen feet six inches; the third story sixteen feet. The basement in front is five feet three inches above the level of the curbstone; and, as the lot descends considerably in the rear, the basement is, on an average, more than one-half above ground. It is divided into six rooms, with a transverse hall, on the same plan as the stories above, the rooms being intended for a chemical laboratory, clothes-room, wash-room, storage, &c.

In regard to the important matter of heating and ventilation, two methods engaged the attention of the controllers. The first was, to generate all the heat in one large chamber in the centre, and send it thence, north and south, to the ends of the building. The objection to this plan was the difficulty of producing, in connection with it, a proper ventilation. To secure good ventilation in an apartment, it is necessary to establish a current through it. The air must be brought in at one end and carried out at the other end. The ventiducts for carrying off the air, after it has been used, must be, as nearly as possible, opposite to the warm flues by which the pure air is introduced; consequently, if the hot air chamber were placed in the centre of the building, the ventiducts would have to be in the extreme ends. But the end walls, in a building standing apart from others, and entirely exposed to the external atmosphere, are naturally colder than those in the centre; they would consequently chill the ventiducts, and thereby greatly impair their efficiency in carrying off the foul air.

Besides this, in order that the ventiducts may be perfectly reliable in all weathers, it is necessary that some artificial means should be used for increasing the current by rarifying the air within them. This is ordinarily done by introducing, within the ventiduct, a jet of burning gas, or a small stove. The trouble and expense of such an apparatus is greatly increased by multiplying the number of places where it must be applied. It was, therefore, very desirable, that the ventiducts should be all brought together into one general tube before going out of the roof. One good fire maintained within it would then suffice for the whole building. But this arrangement would be impracticable if the warm-air flues were to radiate from the centre, and the ventiducts be placed at the extremities.

It was, therefore, determined to take the other method, namely, to centralize the ventilating apparatus, and generate the heat at the extremities. This is done by four of the largest size furnaces, two being placed at each end of the building, and the heat sent inwards towards the centre. This is indicated by the position of the hot air flues, which are all placed in the north and south walls of the several apartments. The ventiducts being at the opposite ends of these apartments, all occur in the two that line the central hall, and are all brought together into two fire proof apartments in the loft, seven feet square, known as ventilating chambers. Into each of these is placed a large coal stove, and from the top is a large cylindrical exit tube, surmounted by an Emerson ventilating cap. By means of the stove in the ventilating chamber, a large amount of heat may be generated, and an impetus may be given to the ascending current to any extent that is desired.

This part of the arrangement is deemed especially important. In clear, cold, weather, when the furnaces are in action, and a current of warm air is constantly setting into one extremity of an apartment, it is not difficult to establish and maintain an ascending exit current from the other end. The air is forced into the ventiduct by the constant pressure from the other end. Moreover, it enters the ventiduct already warmer than the external air. The ventiduct itself becomes warmed; and so the current, once established, perpetuates itself. But when the furnaces are not in operation, nothing of this sort takes place. And yet, this occurs precisely in those parts of the year, when ventilation in a school-room is most needed, viz: in moderate weather, when it is not warm enough to open the doors and windows, and yet not cold enough to maintain a fire. At such times, the stove in the loft, acting directly and powerfully upon the ventiduct, will at all times create an ascending current, sucking the foul air up, as it were, from the several apartments, and thereby causing fresh air to enter from the other extremities. The position of the windows, directly opposite the ventiducts, gives a special facility for this purpose, when the furnaces are not in action. The windows, at such times, take the place of the warm air flues in supplying a stream of fresh air.

The following additional particulars may be mentioned in regard to the apparatus for heating and ventilation. The flues are all made large, both those for the admission, and those for the exit of the air. In the class rooms, which are thirty-eight feet by twenty-two, the warm air flues average one and one-sixth square feet, and the ventiducts two and one-third square feet. In all the rooms, the warm air is introduced at the bottom of the apartment, as near as possible to the level of the floor; and the ordinary opening for the escape of the foul air is also on the level with the floor at the opposite extremity, so as to sweep constantly the lower stratum of air, in which the pupil is immersed. The ventiducts are also supplied with openings at the ceiling, to be used, not in ordinary, but whenever needed, to get rid of excessive heat. In reckoning the advantages of the building, in respect to pure air, especial emphasis should be given to the commendable height of the ceilings. Each apartment has a large volume of air at its disposal, in proportion to the area of its floor; and it is obvious, that the air of a room eight or ten feet high, is much more rapidly vitiated than that of one fifteen or twenty feet high. The average allowance of atmosphere allowed to each pupil is three hundred and forty-three cubic feet, equal to an area of seven feet square in a room whose ceiling is only seven feet high.

IV. b. REMARKS ON PROF. HART'S ACCOUNT OF THE HIGH SCHOOL.

Prof. Bache said, that in common with the other members of the Association, he had listened with great pleasure to the elaborate paper of Prof. Hart. Having had another institution already organized, so that they knew by their own experience what their wants were, the greatest care seemed to have been taken in the new building to adapt it to meet those wants; and while discarding ornament, their plain simple structure seemed to combine all the material requisites for the important institution over which Prof. Hart presided. In listening to the minute account of the details of the arrangements, he had recognized with much pleasure, several which had been suggested by the pupils themselves, as the result of their own observation of what was required. There were some questions of school architecture, of the utmost importance, particularly respecting ventilation and warming, which might now be solved by Prof. Hart; and he trusted he would not rest satisfied until the necessary experiments had been made. He would ask in regard to the ventilating tubes, which have an opening both at the bottom and in the upper part of the rooms, whether any experiments had been made to determine the circumstances under which either place was preferable to the other, or under which both might be employed.

Prof. Hart, replied in the negative. To ascertain the force and direction of the current under different circumstances, required special aparatus; and they had not yet made any satisfactory experiments of that kind; but hoped to do so at some future time.

Prof. Bache, remarked that this was a curious as well as important subject. Knowing the rarefaction of the impure gas by heat, we might suppose that we could calculate *a priori* its position. But partly in consequence of its diffusion, and still more in consequence of the varied currents, we could not tell where we should find it. Hence the importance of making some direct experiments with regard to ventilation from the floor, and ventilation from the ceiling. Then as to the dimensions of the ventilating tubes; they might be too large, as well as too small; so that the size of the maximum useful effect was a desirable subject for investigation. He referred also to the error sometimes fallen into by builders that by increasing the length of a horizontal flue the draft was increased; whereas it would be actually diminished by the resistance from friction.

Prof. Hart stated, as an illustration of the necessity of properly arranging and proportioning the ventilating flues, that when he had explained to the carpenter the unusual extent of the flues which they required in the High School building, he had got the idea that wherever he could put up an additional flue, it would be a special favor; and so had put up an extra series of flues in the east and west wings of rooms, supposing that at least they would do no harm. But when the fire was built, Prof. H., had found a fine draft upon the eastern side of the building, while upon the other side the foul air was blowing down in every room. The next day, the wind having changed, the draft was upon the western side, while the foul air was pouring down in all the eastern rooms. Upon boarding up all these unnecessary flues, this counter current was prevented, and there was always a sufficient draft upon both sides of the building.

In the ventilation of basement rooms, it seemed to him of the utmost importance that there should be a ventilation provided for the bottom of the room. Carbonic acid gas being specifically heavier than common air, and sinking to the floor as soon as the room is cooled, there must necessarily be in basement rooms, especially where the only exit is by ascending stairs, a layer of impure gas resting upon the floor, which may only be temporarily disturbed by our wading through it, and which children in those rooms must necessarily breathe. The result would be the same, although in a mitigated form, as in the Italian grotto where a man could walk without injury, but where a dog could not enter without suffocation.

Dr. Lambert inquired, whether any facts had been determined as to the comparative healthfulness of heating apartments by heat radiated or by heat generated in the apartment.

Prof. Hart said, that he could not answer the question categorically, not having had sufficient experience in the use of heat generated in the apartment. He proceeded to state facts in relation to the health of one of the professors of the High School, who had formerly been much troubled with severe colds threatening pulmonary consumption, but who appeared to have been restored to perfect health; a result which Prof. H. attributed to the superior mode of ventilating and warming the High School building.

Dr. Lambert, referred to cases where the use of radiated heat, brought from furnaces, had been supposed to cause injurious effects.

Prof. Hart, suggested that the cause might have been that the iron of the furnace with which the heated air was brought in contact had been heated to redness. If Chilson's or some similar furnace were used, which perhaps could not possibly be brought to a red heat, and if the hot air flues were sufficiently capacious, so that large supplies of warm air might be introduced instead of small jets of hot air, he could not conceive how it could injure the health.

Dr. Proudfit, referred to the satisfaction which Culver's furnace had given the Free Academy at New York ; and stated the benefit which he had personally derived from its use.

Mr. Cooke, also bore testimony to the benefit which a member of his own family had derived from the introduction of a furnace.

Mr. Barnard—having been called on, remarked—that he had not earlier taken part in this discussion, simply because his own views on the principles of School Architecture were pretty well known, and he had nothing to add to what had already been so well said, in commendation of this structure which has been so admirably illustrated and described by Prof. Hart. He thought so much of these plans, and of this school, that he had already helped to give to an account of them a circulation of over 15,000 copies. The school itself, from its reorganization by Prof. Bache, in 1839, has been one of the standing arguments with him in favor of a broad and liberal system of public instruction in all of the large cities of our country, and he was rejoiced that the school was now domiciled in a manner worthy of its usefulness and its position. For a school organized on this plan, there is no building in this country or in Europe, so far as he knew, in which the now recognized principles of school architecture are so thoroughly carried out. He was satisfied that the apparatus, and means adopted for warming and ventilation, if properly watched, will prove entirely adequate to secure the highest degree of comfort, and successful labor on the part of pupils and teachers—a consummation now rarely reached even in many of the recently erected and most costly school buildings.

V. UNITED STATES COAST SURVEY.

NOTICE OF THE VISIT OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION TO THE COAST SURVEY OFFICE.

The Association having been invited to visit the Office of the United States Coast Survey, a large number of its members inspected that establishment under the guidance of Prof. Bache, the head of the Coast Survey, and of Capt. Benham, U. S. Corps of Engineers, the Assistant in charge of the Office.

It is in this office that the results of the different field-operations of the survey are collected and combined to form those charts, the usefulness, accuracy, and beauty of which, have met with so much acknowledgment at home and abroad. For the purpose of carrying on its various functions to the best advantage, it is organized into different branches or divisions; these were visited successively by the association.

In the *computing division*, the latitudes and longitudes of the headlands, light-houses, and other marked points on the coast are calculated from the astronomical observations and triangulations made in the field. Here everything is reduced to an admirable system of forms and checks, leaving no chance for errors to remain undetected.

In the *drawing division*, the topographical and hydrographical surveys, based on the data obtained by the computers, are united into charts, showing the shore line and all topographical features of the land, such as hills, woods, fields, houses, roads, &c., and the depth of water, rocks, shoals, and the general configuration of the sea-bottom. The field-surveys are generally made on a scale of one-ten thousandth part of matter, (about six inches to the mile;) large enough to admit of every object of note, being distinctly represented. In the office they are drawn on various reduced scales, for the purpose of being engraved on copper, which is done in the *engraving divisions*. There, as in the other branches of the work, economy of time and perfection of results are obtained by a division of labor. Each engraver performs that portion of the work for which by talent or acquirement he is best fitted; the plate passing successively into different hands, the hill-shading (which most determines the artistic character of the plate;) the woods, the sand, the lettering are done by persons who have great proficiency in the several styles, thus securing the very highest character of art.

The *Electrotype division* of the office, is an important element in the publication of the Coast Survey charts. By the galvano-plaster process, that new and wonderful art by which metals are transferred and moulded by the agency of electricity, casts are taken in copper from the engraved plates on which the engraving appears raised, of course. From such a cast or mould, any number of plates may again be obtained by repeating the process of galvano-plaster deposition, corresponding in the minutest particular to the original engraved plates, which are preserved in the archives, while the charts are printed from the electrotype copies. The cost of reproducing the latter whenever they become sensibly worn being inconsiderable, none but perfect impressions are ever issued.

The *printing* of the charts also forms a part of the business of the office, and is performed in the highest style of the art, as an examination of any of the maps will show.

There are depôts for the sale of the Coast Survey charts in all the principal ports, and they are sold at extremely low prices, which are calculated merely to cover the cost of paper and printing. The charts are besides freely distributed, on application of the respective members of Congress, to all educational and literary institutions in the country.

The strict economy with which the Coast Survey is conducted, and which has been acknowledged by many successive National legislatures, and approved by increased appropriations, is evidenced to the visitor by the appearance of its office of publication. We cannot but be struck by the extreme frugality of its accommodations; here are no handsome mahogany desks, no arm-chairs, no carpets—plain pine tables, common wooden chairs, uncarpeted floors in rooms hired for the purpose—everything denotes the strong business character of the establishment, when all available means are applied to the purpose in hand.

The phenomena of the tides as recorded by many simultaneous observations on the Atlantic and Pacific coast of the United States, are discussed and investigated in the *tidal division* of the Coast Survey Office, under the immediate direction of the Superintendent, Prof. Bache. This subject is one of as high scientific interest as of practical importance; the highest powers of analysis are required correctly to interpret the observations and refer them to their causes, by which means alone it will be possible to predicate with certainty the stage of tide at any time for particular localities—a result of paramount value to navigation, and which, when attained, will of itself be an enduring monument to the Coast Survey.

This great national work, has within the last ten years reached an expansion which is calculated to lead rapidly to the attainment of the most important results, and to its final completion. Proposed as early as 1807, under the auspices of Mr. Jefferson, it failed of being prosecuted on account of political disturbances of that period and the subsequent war. Revived after a lapse of ten years, the undertaking did not meet with the continued support of Congress. But, when in 1833, the plan was broached again, the want of a thorough survey of the Coast, and the insufficiency of coasting-maps had been so sensibly felt, that the work was authorized on an adequate scale, under the superintendence of the late Prof. F. R. Hassler, who successfully prosecuted it up to the time of his death, in 1843. The progress at first was necessarily slow;

methods had to be devised, means created, assistants trained; the fundamental portions of the work, barren in immediate practical results, but vital to the correctness of the work had to be executed in advance to a certain extent, before results of practical value to navigation could be obtained. A near sighted utilitarianism among members of Congress, unable to see the important practical results that were to spring from the system adopted, often cramped the pecuniary means of the survey, and harassed its chief. His successor, the present Superintendent, has largely gained the confidence of the country, and under his auspices increased appropriations have been made by Congress, and the operations of the survey have been so extended as to be carried on simultaneously in all the states and territories contiguous to the ocean. From New Hampshire, to North Carolina, the survey is very nearly completed, and charts have been published of the most important harbors, approaches and dangers on all parts of the coast.

While the principal objects of the survey are universally appreciated, its influence on education should not be overlooked, and deserves special notice at our hands. The positive increase of geographical knowledge, is, of itself, a point of great value; for it is not only in minute details that former maps have been corrected—in many instances the principal features of the country were erroneously represented. On the Pacific coast especially, the contributions to geographical knowledge have been very important.

This knowledge is not only procured, but is widely disseminated by the distribution of maps, charts, and the annual reports of the Superintendent, to the various literary and collegiate institutions of the country.

A number of young men annually enter the Coast Survey service, and receive there a training in the practical application of mathematical and physical science, superior to what is afforded by any other institution. The prospect of taking a part in this great work has served as an incitement to students, and has been the cause of raising the standard of the scientific course in many colleges, where the introduction of the study of geodesy is an evidence of this influence.

The members of the association, also visited the office of *standard weights* and *measures*, which is also under the superintendence of Prof. Bache. The construction of copies of the United States standards for the several states, and the principal custom-houses, is most ably carried on under the direction of his assistant, Mr. Joseph Saxton. The balances constructed here have everywhere been acknowledged as of unequalled workmanship, and a gold medal was awarded to them at the Great Exhibition in London, in 1851.

All the individual states having adopted the standards of the General Government, a desirable uniformity will be the result; and many manufacturers of measures and weights have availed themselves of the facilities afforded at this office, to make their own standards and articles of manufacture correspond to those of the United States.

While the uniformity thus secured is of great practical value, there is still room for progress in legislation on this subject. The standards at present adopted. viz: the pound *avoirdupois*, the yard, and the gallon, are not sub-divided decimally, and have no simple relation among themselves, being in this respect like the British standards, to which they very nearly conform. It may be hoped that in the course of time a general appreciation of the advantages of a decimal system, and of a simple relation between measures of length, capacity and weight, will lead to a revision of this subject, and the adoption of a system similar to that of the French, whose example we have already followed in our decimal currency. The advantages of their system might be obtained even while the general substitution of the French standards in the place of our own cannot be considered as practicable: this subject draws attention under a novel point of view, Prof. Bache, having expressed his ability to furnish standards of lengths invariable at all temperatures, an advantage which must be highly appreciated by all surveyors, who in localities where property is very valuable, have found great inconvenience to arise from the variability of their measures of length.

On taking their leave, the members expressed themselves highly gratified by their interesting and instructive visit.

VI. DISCIPLINE.—MORAL AND MENTAL.

BY Z. RICHARDS, WASHINGTON.

The careful observer of the efforts of the friends of Education, will not fail to observe that the spirit of the age is favorable to real advancement. Theories, plans and experiments are multiplying almost without number; and, though many of them, upon trial, prove to be false or useless, yet on the whole real progress is the result. The demands of the age encourage improvement; and a spirit is therefore awakened to supply these demands. Genius and ingenuity are called out; and the result is, that in many things, progress is strikingly evident; and, though the times are marked with the ruins of exploded theories, and futile, impracticable plans; yet the agitations, like those of the elements, are purifying the educational atmosphere.

The difficulties in the way of true progress, are not to be found in the want of good theories, so much as in the want of the ability to carry them out. Talent is not so much wanted, as tact. The intentions of a great many educational experimenters are good, and their efforts well meant, though not always well directed. Yet, in the cause of education, and in the work of practical instruction in our own country, there are many engaged, who understand the work well, and are able to do it: at the same time, it must be acknowledged that the larger portion of those engaged in the business of school instruction, have very inadequate ideas of their work, and a great lack of ability to execute it.

If my observations are correct, the great difficulties in the way of real progress, are to be traced mainly to the want of a proper understanding of the *nature*, *object* and *end* of *moral* and *mental* discipline; and also to the use of improper means for securing such discipline.

In presenting the few thoughts which my experience has suggested upon this subject, I desire to draw out the more mature views of others; and thus be the means of adding to the stock of knowledge, which will most essentially aid in carrying forward the great work of school instruction.

Discipline must be considered as one of the prominent objects of school training. School discipline then should be thoroughly understood. But when this subject is introduced, the ghost of a rod or strap rises up before the troubled vision of most people. Ask what is meant by a good disciplinarian in school, and the general reply will be, "the teacher who knows how to inflict a successful whipping; one who knows how to make boys learn to be wise and good, by a liberal use of the rod." Many people seem to have no higher idea of good discipline in a teacher, than that of being *master*, in a *physical sense.* A master he should be indeed; but not of the rod alone. Law and order must be maintained; but the strap, or corporal punishment is only *one* of the means. The horse may be controlled by the bit and the lash; so the child may be *forced* to obey; but no obedience will amount to discipline, properly considered, which has no higher end. A government of pure force may be disciplinary; still it is not all that is needed in training moral and intellectual beings. In school discipline, therefore, the *moral* and *intellectual* nature of the pupil must be especially regarded; not, however, to the neglect of the *physical.*

I have before said that corporal punishment is only one of the means to be used in securing discipline. Those, therefore, who regard school discipline as nothing more, have very imperfect views of the subject.

Punishment, as we shall see more fully hereafter, in its full sense, is by no means necessarily physical. In fact it has reference mainly to the intellectual and moral being. Punishment, thus viewed, is not *all* that belongs to discipline; yet I am inclined to think, that if its real design, and true nature were more fully understood, it would be seen to make up no small part of real school discipline. But all punishment, in order to secure proper discipline, must be *moral* in its ultimate results. But is this opinion generally received? If I have rightly observed, it is not. Physical or corporal punishment is not generally considered, as moral in its effects.

I shall therefore consider all punishment as an essential part of moral discipline.

But what is moral discipline?

It seems to me to be such a course of training, as will secure the full development and proper control of all the moral powers; so that the passions, the appetites, and the desires may serve to perfect our present and future happiness. The conscience, which enables us to feel that there is a *right* and a *wrong*, must be so enlightened and influenced by proper training, as that its dictates may be safely followed.

Moral discipline is to be secured, so far as possible, by the proper presentation, on all proper occasions, of the great cardinal principles of correct human action—*truth*, *justice*, *right;* and by the judicious enforcement of moral precepts. What is right, and what is wrong must be understood ; and this is not a task so difficult as many imagine. To incline the will to obey the right, and avoid the wrong, is the great, the difficult work. As an illustration, I would ask, what child in this christian country does not know that it is right to speak the truth and wrong to lie? Yet what teacher has not found deception or lying, not only one of the most common and alarming of moral delinquencies, but one of the most difficult to correct?

In view of the principles above alluded to, it seems to me there are *three* ways by which the teacher or the parent is to train the child to obey the right and avoid the wrong.

1st.. By instilling into the mind of the child, on all proper occasions, and in the most judicious manner, the truths of Revelation, and such moral precepts as harmonize with Revelation. The *occasion* and the *manner* have very much to do with the success which is so desirable. On this topic I would be glad to enlarge, if the present circumstances would allow. I am aware that it opens the great field of religious instruction in our schools ; and that it is a subject which is now exciting great interest and anxiety among the friends of education ; and which is considered a most difficult one to dispose of. Still the subject must be met and disposed of ; and there is but one best way. Who is wise enough to point out that way? Yet much can be done in the way of imparting religious instruction in our Schools, which will meet the approbation of all good citizens.

2nd. By example. The teacher must be a model of all those moral excellencies which he recommends to his pupils, if he expects his moral instructions to produce beneficial results. As is the teacher, so is the pupil. In no way is this saying more strikingly exemplified, than in the moral influence of the teacher. He must therefore conscientiously *adhere to truth in all he says and does.* He must understand, administer and even love justice and right. He must have a clear, quick and *pure* conscience. He must, every day, every hour, every moment, feel and fulfil the obligations he is under to his Heavenly Master. As no parent is fit to bring up children, so no teacher is fit to have the training of them, who has not a heart to exhibit a correct moral and christian example. I would be glad to specify some of the necessary traits of character in the teacher, and the mode of forming them, if time and space would allow. Yet, even sound moral precepts, and correct examples are not *all* that are necessary to moral training. The teacher may be faultless in his endeavors to impart sound moral instruction by precept and example, and yet not do all he can do, for the moral training of some pupils. The blessing of Heaven is not by any means to be disregarded by the teacher; for on it especially must he depend for success in every effort. But another way by which the teacher is to train the child to obey the right and avoid the wrong is,

3d. By punishment. If neither precept nor example will make the child do right, he must be *forced* to it. This is a prerogative, and a duty of the teacher. God in the order of his providence, and by divine commission has made the parent and teacher the dispensers of punishment, when necessary.

But here I must recur to my former position, that the object of all punishment is *moral.* In the infliction of it, the *mind must be reached;* for the mind is to be the medium to the heart. The reason and judgment and *will*, must be affected; *first*, by the presentation of such motives and reproofs as will reach the mind directly; and *secondly*, by the infliction of bodily pain. The mind can suffer pain as well as, and independent of the body; and in as much as the mind must always be reached, some have concluded that the mind should be the only medium of reaching the moral feelings. Hence it comes to pass that so many advocate the moral suasion principle; and denominate the use of the rod as a relic of barbarism. But even the best teachers have found that moral motives will not always reach the moral feelings. The only other mode of reaching the moral sense, is first to reach the mind through the body. God has recognized this as the true method, when He has said "chasten thy son, while there is hope, and let not thy soul spare for his crying;" and "He that spareth the rod hateth his son; but he that loveth him, chasteneth him betimes." Here we learn by divine authority, that physical means may be used, nay, sometimes *must* be used, to accomplish a moral end. Corporal punishment can then accomplish no good end, if it is not a means of moral training.

Much of the force of the objections to the use of the rod, or to corporal punishment, arises I think from a want of a proper understanding of its real relation to the moral feelings. I can hardly hope to make this matter fully understood; still I will venture to give the view which satisfies my own mind.

But first let us ascertain what true punishment is. The best definition I can give, is, that *it is pain inflicted upon the body, or mind, by proper authority, to reform or deter.* We must keep in mind, however, that the aim of all punishment should be, to reach the moral feelings.

To expand the above definition a little, I would say in the *first* place, that the moral feelings are to be reached through the mind, either by motives of a moral, or intellectual character; or, if these fail, (as it must be admitted they may) by the infliction of pain upon the body.

In the *second* place, punishment must be inflicted by *proper* authority. In the case of the minor, this authority rests in the parent; or by delegation, in the guardian or teacher. If these agents can not prevent the minor from trespassing upon the rights of society, then society has the authority.

In the *third* place the object of punishment is *first* to reform and correct; or to give a right direction to the thoughts and feelings, when they have been perverted; and *secondly* to deter the child himself from a repetition of his fault; and also to deter others from a commission of the same.

Now it seems to me that there is a very clear and important relation between the rod and the moral feelings, and that not to recognize this relation, is not to recognize the generally acknowledged relations of matter and spirit. If the rod, which our Heavenly Father has directed the parent to use upon his child, and not to spare for his crying, has no relation to the moral feelings, then has not God designed any of his physical judgments for our good. But we must admit that God's word does recognize this relation; and that he meant we should act on this recognized relation, when He said "*Train* up a child in the way he should go."

But as there are some hair splitting, speculative inquirers after truth, who are wise above what is written, let us see if we can not trace out this relation upon natural principles. For an illustration, let us suppose that the child has violated some known rule of his parent or teacher; or he may have been guilty of some moral delinquency. All moral and intellectual motives have been exhausted to bring him to repentance and reformation. Mind *alone*, fails to reach mind, which must be done. The rod then must be used to inflict pain upon the body. The culprit knows or should be made to know, that he feels this pain, because he has *done wrong;* because he has violated *truth* and *justice.* Unless his body is insensible to pain, the remembrance of the pain, will remind him of his sin. The fear or dread of the repetition of this pain, will restrain him from the repetition of his fault. This course may be followed, until doing right becomes a habit, if nothing more ; or his moral feelings may become averse to his fault, and thus reformation may be effected. If the desired end is not thus gained, then human responsibility ceases.

For a particular illustration, let us suppose that a child has not learned, that one of the most important lessons of this life is *self denial.* This lesson he should learn, both for his own, present, and future happiness, and for that of others. The gratification of his passions and appetites seems to be his first object. He is commanded to deny himself ; to restrain his appetites. He disobeys without regard to any future consequences. Then let him feel the present consequences—*that* chastisement which high heaven has sanctioned—that use of the rod, which is not to be spared for his crying. If the consequent reformation does not follow, his case may be considered incorrigible. Yet if this course were pursued with the erring child, I think there would be a much smaller number of incorrigible cases than we now have. It may be said that the evil begins back of the school-room, in the nursery. That may be ; still the principle is correct, and should be applied as far as possible in the school-room ; *and well may we pray that it may be better understood in the family.*

Suppose again that we wish to teach the child to love his parents, brothers, and sisters or schoolmates. He is, it may be, guilty of violent hatred, which manifests itself in outward acts. For mere dislike, he may be induced by moral motives to govern himself; but if it results in violent acts, which moral motives will not reach, then the same course may be pursued, as in the case of self denial; and every case of moral delinquency may be treated in the same manner.

If the views above presented are correct, we can not fail to see that government, or if you please, punishment, makes up no small part of moral discipline. When the child has been taught, and trained to habits of implicit obedience to his parents and teachers ; and further, when this training has been so conducted, as it may be, as to *enable the child to govern himself, the great end is reached ;* a sure foundation of a correct character is laid ; and the most effectual pledge is secured for obedience to all laws human and divine. I think a careful examination of facts would prove that those youth, who have thus learned to obey their parents and teachers implicitly ; not those who have been whipped the most, and subjected to the most rigid severity, will make the best citizens and the best christians. The secret of all insubordination in society is to be found in the want of proper moral discipline, at home and in the school; perhaps I ought to say to a want of quiet and habitual submission to *parental* authority. To what error in early education more than to this, can be traced the prevalent insubordination to God and his word? Let this error be thoroughly corrected, and we shall see verified that divine direction "Train up a child in the way he should go, and when he is old he will not depart from it."

Thus far I have considered moral discipline, as distinct from religious instruction, with the intention of developing correct general principles to be observed in moral education. I have endeavored to advance such views, as I thought would meet with no objection from any good man.

Religious instruction and religious training must be given; and all the fundamental principles of our common christianity may be safely insisted upon by teachers, and they *ought* to be; yet not as a separate course of instruction. The spirit of our holy religion should always be regarded, and exemplified; and I am inclined to believe that a system of public instruction for the whole people can not safely include more. If all teachers would be governed by the views of moral education, I have tried to present, I think no good citizen would object. Very few persons are so illiberal as to object to a teacher's imparting wholesome moral instruction. Denominational instruction must be exclusively confined to denominational, or parish schools. No foreign standard will answer for us; we must have an American system.

The subject of mental education, or *mental discipline*, next demands our attention, as a part of school training. It is with great diffidence, that I enter upon a subject of so much importance, which the wisdom and experience of so many enable them to understand better than myself. If I can awaken a spirit of inquiry upon this subject, which shall result in the spread of more correct views, I shall be satisfied.

Nearly every educational paper, lecture, and discussion, treats more or less of mental discipline. The peculiar merits of every branch of education are considered with reference to its tendency to develop and train the mind; but I have been led to think that very many of the views expressed are too low, if indeed they are not incorrect. It is indeed important that those studies should be pursued which are best calculated to discipline the mind; but still it is of the first importance to know what mental discipline is; and what laws or principles, rather than what books, are necessary to secure it.

What then is mental discipline? I would first reply negatively, that it is not pain nor necessarily the result of pain or punishment. It is not what many mistaken parents and teachers seem to consider it,—the storing of the mind or memory with facts material or immaterial. It is not going to school, nor the reading of many books. It is not knowledge. Though its acquisition is of the first importance, yet it does not consist in the number of different studies passed over; nor even in the ability to solve mathematical problems, or translate Greek and Latin. There are many who have done all this, and yet have not gained true mental discipline, as I conceive; any more than that a man must have a healthy system, who can swallow down every kind of food, or freely quaff of every kind of drink.

This, indeed, is a practical age; yet it is somewhat amusing and sometimes painful, to observe the various views of people as to what is a proper education. With very many there is nothing practical in education, unless it increases the material—the dollars and cents. With some, personal accomplishments, a few *ologies* and *ographies*, the use of the brush, the pencil, the needle, the piano, the etiquette and paraphernalia of the ball-room, and the dining-room, with its gossip; a little yellow covered literature, embracing the last novels; readiness in making change, and the ability to write one's name and smatter a few French phrases, are all that enter into their views of a good education; and they can not conceive of any thing more necessary. And why should they when their silly mothers and some silly teachers practically teach them so? Some of these qualifications may be good in their place, to a certain extent, but they are neither education, nor the object of education, which I conceive to be the proper development and discipline of the mind. But it should be observed that there is a distinction to be made between development and discipline of mind. A full development of mind will make a man of great power of thought; and discipline will enable him to use his thoughts as he pleases. The one will make a person a brilliant and startling genius, the other a person of reason and judgment. The one will be eccentric and unreliable; the other will be regular and reliable.

Before the importance of mental discipline can be properly understood and appreciated, the people must learn and feel that the mind is more valuable than the body; that its desires when properly gratified, its powers when fully developed and properly disciplined, its cravings when properly satisfied, will yield more rational and pure happiness, than all that can flow from "the lust of the flesh, the lust of the eye, and the pride of life." Yet most people seem to be seeking those things which minister to the carnal appetites. The growth of mind, the exalting and purifying influence of pure thought, the comprehension of great truths, the ability to think on what one pleases, and the power of controlling and holding one's thoughts to the desired object of contemplation, are means of happiness little understood and little thought of, by very many who think they know the value of education. When this fact is fully realized, is it any wonder that we are struck with astonishment at the strange perversion of our noble powers! Yet we may not consider it so strange, when we consider the tendencies of education at home, and often even in the school. The animal and the sensual, rather than the intellectual and the moral being, receive the greater amount of development and discipline; and the animal passions thus developed, blunt and paralyze those noble powers of the soul, which alone can exist to enhance our happiness or misery, when heart and flesh shall fail.

Mental discipline then may be defined as being such a development and training of all the mental powers or faculties, by habitual exercise, as will most effectually exhibit their native power, and give the subject the full control over them, so that he can use them at will to the extent of their capacity. To acquire this ought to be the great end of education. This is the great work of the teacher; and to him, and to all who deal with mind, nothing can be more important than to know how to accomplish this work.

Considering this definition to be mainly correct, let me deduce some of those principles, which, it seems to me, ought to be regarded in the training of the mind. I shall not, however, be able to introduce those practical illustrations, at this time, which the importance of the subject demands; and which would be quite as interesting and profitable, if this were the place to present them. It is no part of my object to determine in what part of the body the mind is located. It is enough for me to consider it as a tenant of the body, having the whole body under its control; yet materially affected in its development and training by the conditions of its tenement. The body is the medium through which the mind is to exhibit itself. What the mind would or could do, if freed from the body, we are not now able to know. If it were not affected by this earthy, sin-corrupted tenement, I suppose its powers would be developed and perfected immediately, and fitted for the service of Him who made it.

The following are some of the principles which, it seems to me, ought to be especially regarded in disciplining or educating the mind.

The *first* is physical health, which may be considered as a condition. The body must be as free as possible from disease; for the mind sympathizes with the body. A weak suffering body will not be likely to have a strong, active, and well-controlled mind. All intemperance or excess, in eating, drinking, or exercise, all exposure to changes of temperature, and all irregularities of habits should be scrupulously avoided. The laws of health should be carefully studied by every parent and teacher; for they are of vital importance, yet easily understood. It must be admitted that this subject does not receive the attention it deserves.

If these laws of health and physical development are allowed to be violated, mental development and mental discipline will be secured with difficulty, or rather not secured at all. It is almost useless to try to impart mental instruction to those pupils whose parents, out of misdirected kindness, allow them to indulge their appetites to excess, or to disregard in any way the laws of health. It could be easily shown that the teacher also has a responsibility in this matter.

But in the *second* place correct mental discipline can not be secured without *giving* and *holding* the *attention* to the subject under consideration. The ability to fix and hold the attention can not be estimated too highly; for all success in scholarship depends upon it. It can not be disregarded with impunity even in the *youngest pupil;* for the *very first efforts* to instruct the child will form the habit for good or for evil. The difficulty in fixing and in holding the attention experienced in advancing years begins with the child. Whatever, therefore, the pupil is required to do should receive his undivided attention, and nothing should be done without it. Whether one or many are to be instructed at the same time, the attention of every one must be given. Care and judgment are highly necessary, of course, in presenting just such thoughts and lessons as are adapted to their capacity. Then again, one thing at a time should claim attention, until it is fully mastered. Let that one thing be within the reach of the child's mind, and then impressed upon it until the idea is perfect. But I hesitate not to express my belief that more instructors fail on this matter of attention than on any other which relates to mental discipline. I repeat that *attention* is the first thing to be regarded in the business of instruction. A failure here is a vital failure.

But I must say farther, that in this part of his work as in every other, the teacher must be a model for his pupils. No scatter-brained instructor will make an attentive scholar; and consequently such a teacher can not impart proper mental discipline.

Again, the *first* instructions should be given by those instructors whose minds have been correctly trained, and who themselves understand the laws which should direct the development of mind. The person who lays out and begins the great work of educating an immortal mind, should be a *master workman.* If only an edifice of brick and mortar is to be erected, the most skillful architect, and a wise master-builder must be employed to get the work ready for the more inexperienced workmen. How much more important is the planning and beginning of that education which is to fit the mind for its existence, long after the walls of brick and stone shall have crumbled and dissolved into their original elements. The starting point then is the most important; for if this is wrong, the whole superstructure is wrong. "Just as the twig is bent, the tree is inclined." To start education rightly requires as much skill and as much knowledge of a certain kind as to conduct it aright afterwards. Hence we may see the utter folly of committing the first instructions to the most inexperienced teachers, so common in our country. Ten thousand evils grow out of this custom; and we may well ask, *When will the world grow wiser on this subject?* Every friend of true education ought to make his most solemn protest against this unreasonable practice. Still I am aware that this evil will continue until every community will provide proper means for training teachers such as some portions of our country now afford.

Again, to keep the mind under proper discipline when started right, the instructor must have power over his own mind, and be qualified by mental training and a fund of knowledge to meet the growing capacity and the strengthening powers of the pupil. This statement alone must suffice here; for the illustration of this position might fill pages.

Again, it should be known and ever remembered, that the laws which govern the mind are similar to those which govern the body, in its development and discipline.

And *first*, the mind requires active, well-directed *exercise* and *rest;* and these should alternate regularly and systematically, as day and night, through the whole course of mental training, *until every proper mental exercise becomes a habit.*

Secondly, the mind, like the body, requires food, or matter for thought. This is to be furnished from the experience of others, in oral or written instruction, or from the great book of nature. And here *first* it should be noticed that this food—these subjects of thought—must be of the *proper quality*, if we would secure healthy development. Here, as much as any where, perhaps the wisdom of the teacher will be taxed, in selecting the best kind of books, in presenting proper subjects of thought, and in pointing out the proper sources of improvement. Poisonous food may be administered to the mind as well as to the body. Yet I am inclined to believe that the *kind* of study pursued is not of so much importance in securing proper discipline of mind, as the *manner* of pursuing it. Every useful branch of education can be so pursued, I think, as to secure proper discipline. One branch of study will secure one kind of discipline, and another, another kind of discipline; for discipline, and not science, is the first great object of education.

Latin and Greek *may* develope the powers of the right arm, and mathematics the left, but our own language, with its accompaniments, must make up and develope the head, the body, and powers of locomotion. If foreign languages and mathematics have any peculiar merit in mental discipline, I think it is to be attributed mainly to the fact, that the pupil can make no useful progress in them without personal effort and undivided attention.

Again, these subjects should be furnished as food to the mind in proper quantities; not too much nor too little at a time. Life may be preserved with a mere pittance of food, but not sound health. So a *little* knowledge will have its good results. I can not adopt the language of the poet, that "a little learning is a dangerous thing;" still, to secure proper mental development, we need to make strong and vigorous mental efforts; just as we would secure the greatest strength of muscle, not by overtaxing it, but by habitually using it as much as it will bear. But let it be borne in mind, that knowledge is not to be poured into the mind of the pupil by the teacher, any more than the master workman is to do the work for his apprentice. The teacher must provide the work, present the inducements, and see that it is done, *and done right.* The pupil is the agent, and not the passive agent either. Teachers are not so apt to fail in providing a sufficient amount of work, as in presenting proper inducements, and in being sure that it is done right. Here, too, let us be reminded of the responsibility of the teacher's profession. How unphilosophical to commit this work to young and inexperienced hands. Well may he who realizes these fearful responsibilities cry out, "Who is sufficient for these things!

Another view which I would present is the adaptation of the subjects of study to the age of the pupil, and to the state of mental development. Sometimes milk will be required, (not *milk and water*) and sometimes strong meat. I must deny myself the gratification of illustrating this very fruitful theme. Yet I will say that the laws of progress in the growth of mind are evident, though not as well understood and regarded as they ought to be. We hear much about progressive books, progressive series of books, and progressive instruction, yet a careful and philosophical examination of the whole matter, by a master mind, can not fail to prove that the natural laws of progress have too often been disregarded.

In conclusion I will say, that it seems to me important, that the views I have presented, though not new, should be thoroughly understood by all teachers; and if *parents*, as well as teachers, could be all brought to feel their importance, a mighty change would come over the systems of family and school education. There are very few communities, and very few parents, who do not need to be enlightened on this subject. Even the good that *is* done is not *fairly* understood and appreciated. Every one considers education highly important, but very few understand what is necessary to gain it. As growth of mind and mental discipline can not be measured by the eye or ear, nor by the undisciplined, so oftentimes real changes and improvements are unobserved. As the outward change is most easily noticed, so it is often taken for an inward change. Really the most important changes in a course of education are such as are most likely to escape observation during the formative period. This process, however, the true teacher understands. Let us labor to make all understand it.

VII. PUBLIC EDUCATION AMONG THE CHEROKEE INDIANS.

Mr. William P. Ross, who had taken a prominent part in the education of the Cherokee Indians, having been requested to make a statement as to the condition of education among these Indians, said:

We have a system of common schools. Our funds for their support are derived from investments made under treaty stipulations with the United States. We receive only the interest from these investments, which we apply to the support of every description of our schools. The first is what we call our public schools. Of these we have twenty-one, scattered in different parts of the Cherokee country. They are under the immediate supervision of a Superintendent, who has the power of appointing three directors to assist him in the management of these schools. Our teachers, before they are appointed by the superintendent, must pass an examination before an examining board, consisting of three members. Upon presenting themselves for examination, they are required to furnish a certificate of good moral character. If they pass a successful examination before this board, they receive a certificate to that effect, and may then be employed by the superintendent They receive for their salary at the rate of $400 per annum. The majority of our teachers at present are natives of the Cherokee country, and a part of them are females. The other class of schools supported out of our school funds is the high schools or seminaries, of which also part of the teachers are females. They are somewhat upon the plan of the college, although the course of studies is not so high as that embraced in the colleges of the United States. The buildings are intended for the accommodation of one hundred students, although at this time they have not such a number. Twenty-five annually, provided that number can be obtained, are taken from our public schools, after advancing to a certain stage, and are admitted to these high schools, where they pursue a regular course of study entirely at the expense of the nation, excepting of course their clothing and a few minor articles. But their board and tuition are given them free of expense to their parents or guardians. We have in each of these high schools three teachers. The principal of our female seminary, and in fact most of our female teachers have come from Mt. Holyoke, in Massachusetts. Our male teachers have been educated at Rochester, New York, excepting one gentleman who is a graduate of Yale College. We pay our male and female teachers in connection with the seminaries, the same salaries ; an arrangement to which the gentlemen object, but to which I believe the ladies have never interposed any objection. We think their services at least as important to us as the services of the other sex ; and if the men agree to work for a stipulated sum, they should not find fault if we pay the ladies quite as much. Our principals receive $800 annually, and their board in the institution, which I suppose is equivalent to at least $1000 a year. Our first assistants receive $600 and board, and our second assistants receive $500 each. Besides these schools, there are five or six connected with the different missionary stations, at which tuition is free. Very few of them, however, board the students who attend them. There are also a few private schools, supported by private funds. This statement, I believe, Mr. President, embodies briefly the system of common school education among the Cherokees. I may take occasion to remark that the people are waking up very much to the importance of education among us. I believe if we had the means we could to-day double the number of schools in the Cherokee country. As regards our school-houses, they are as yet nothing but log cabins, some better constructed than others, but all susceptible of great improvement. Before a neighborhood can receive a public school, the law requires that they shall construct a school-house ; and in order to the continuance of the school, it is necessary that the neighborhood should furnish an average attendance of not less than twenty-five. The Seminary buildings are of a durable kind, being built of brick, and costing, I suppose, something like $30,000 each.

The population of the nation is something less than 20,000, probably not more than 18,000.

Dr. Proudfit inquired what language is taught in their schools.

Mr. Ross.—The English language is taught exclusively in all our public schools. The Cherokee language has been reduced to writing many years, but is not taught in connection with our schools. In fact it is hardly necessary to do so, for a sprightly lad can learn to read his native tongue in a day or even less than that. All of our proceedings, the records of our courts, and our public schools, everything of that description is in the English language.

Mr. Richards said that Mr. Ross had just stated a fact calculated to astound an English teacher, and inquired how it happened that a Cherokee lad could learn to read his native tongue in a day.

Mr. Ross.—The Cherokee alphabet, which was invented many years since by George Guess, a very remarkable man, is a syllabic alphabet, composed of eighty-six characters which represent, uniformly, or very nearly so, the same sounds. All that is necessary is for him to commit to memory these characters and their sounds, and when he has done that he proceeds to read at once.

Mr. Richards.—I can't keep still now, because that touches a point which lies near my heart, I assure you. I am no monomaniac or hobby rider of any thing; but if there is any thing that touches my heart, it is the principle which is alluded to there. The fact that this Association has ruled out, or got out in some way or other, the efforts of friends of education in this country to bring about the same condition of things in the English language, has pained me. I am glad we have had that statement made, and I hope it will have an effect. I hope that the subject of phonetics, or writing the English language with characters which have but one meaning, will yet receive a thorough examination in this Association. It deserves it. Just as easily could the reading of our own language be learned, if we had characters that would represent but one meaning,—and we have them if we will accept them, just as easily as can the Cherokee language; with the exception that, perhaps, the syllabic structure of their language and alphabet would afford an additional means of acquiring rapidity. The principle is precisely the same, and I do hope we shall hereafter have that subject, fully, thoroughly, and candidly considered by this Association. I must say that I think there has been too much of a disposition, heretofore, to treat it with contempt, and as a matter of no importance.

VIII. DISCIPLINE; SCHOOL GOVERNMENT.

BY REV. SAMUEL M. HAMILL, LAWRENCEVILLE N. J.

The remarks contained in the present address are chiefly the result of personal observation. They shall be illustrated by incidents that have occurred under the writer's own eye.

Our theme is discipline. And what is discipline? The derivation of the word, if we take it from the Latin, is from the two words *disco pullus*—to learn the young—to train a sprout. Richardson gives us to "train up in the means of learning." This opens to us the whole field of educational training. It opens indeed too wide a range for the space of time allowed us on the present occasion. And as we can not ramble thus, we shall content ourselves with a narrower scope, and come down to the generally-received and more limited use of the word *Discipline.*

We shall call attention more particularly to *school government*, its *importance* and the *best means* of carrying it out.

First. Its importance.—There is very little advancement made where there is no government. There is generally but little acquisition of knowledge and little scholastic attainment on the part of pupils, where the government of a school is radically defective. A badly-governed school is a poor school any where. There may be a good supply of teachers. They may be learned, and agreeable, and popular, but if the school is not well governed little will be accomplished. Where there is only one teacher the matter is likely to be still worse. Where there are several, the qualifications of one in this particular may remedy the deficiencies of another. But far the larger number of our schools are taught by one teacher. How often does it occur that an individual is introduced into the school-room, and obliged to leave it, because he can not govern those who come to receive instruction from him.

The teacher of a district school may have all other qualifications, but if he has not the art of government he will fail. No man can long satisfy the demand of the school, or satisfy the public around him, whatever else his qualifications may be, if he is not able to govern his school. Ability to govern well, then, is a most important item in an instructor. It is difficult to obtain. There is no item in the account of a good teacher more difficult to secure than this.

We knew, some years ago, an instructor of large attainment, who was not able to govern a dozen boys. His head teemed with knowledge. He was profound and versatile. He was at home any where in language or science. He could entertain by the hour or day if need be. One was well paid to sit and draw upon his endless resources. He had much knowledge but no authority. He failed as a teacher because he could not govern.

We remember another case. It was that of a most excellent young man, a graduate of one of our best colleges, an honor to his class, a finished scholar and an accomplished writer. He was able to instruct too, but he could not govern. In the course of a single session such disorder crept into his class-room, that it began to diffuse itself through the whole school, unsettling its discipline.

The former of these individuals was a man who abounded with words. The latter was a man of few words. The want in both cases was ability to govern. This single defect canceled all other qualifications.

But what is essential to good government? We remark, *authority*.

To govern well, a teacher must have authority. What is authority? How shall it be secured and maintained?

It is not merely that which is obtained from a board of trustees, or school committee, or town superintendent, or county examiner. These may be all very well, each in its place. They may be necessary to give legal form to authority. They may be required by the conventional arrangements of society. But a teacher may have them all and yet be in want of the chief ingredients of authority. A man may have the ferule or the birch put into his hands, and all the paraphernalia of master-like authority that we have ever known any thing of in our school-boy days, or of which our fathers or mothers may have told us; and yet these are not the true sources of authority. Nor is authority characterized by over-much speaking. A teacher may be a man of many words, and yet be wanting in authority. He may be a man of few words, and have it.

It is not then mere legal form, nor the instrumentalities for executing it, that constitute authority. It is a power in the individual himself, independent of all circumstances, and rising in its own majesty above all mere conventionalities. It is a power difficult to describe, but which sends out its streams of influence along the teacher's pathway. It enlightens, it warms, it vivifies as it continually radiates from him while he silently occupies his position in the school-room. It shows every pupil his place, and keeps him quietly in it. It is identified with the man. It is cheerfully conceded to him. And yet it goes out from him. It goes wherever he goes. And every pupil is brought under its influences. It exists in the man, demanding, and securing, and retaining cheerful obedience, and becoming the central point of all that he does in the way of government.

But suppose this authority to exist in form, in the instrumentalities necessary to execute it, and in fact in the man. Suppose the teacher in his place clothed with this authority, how shall he bring it to bear so as to give to his school a good system of government? We would suggest four points.

1st. The arrangement of his school-room.

2d. An appeal to the sense of propriety, sense of honor, sense of shame.

3d. An appeal to the flesh.

4th. The cultivation of the heart, and appeals to the conscience.

First. The school-room arrangement should be characterized by neatness, fitness, and convenience, in the room itself, the furniture, and all that pertains to the school. Items of this kind hold an important place in the discipline of a school.

A very important aid to school government will be found in the proper arrangement of pupils. Two principles may serve as landmarks here. *First*, do not let your pupils sit facing each other. A sufficient reason for this will be found in the fact that whenever children are put face to face, there arises the disposition to smile, or to make other demonstrations with the countenance, or to talk. This creates confusion. It prevents attention to study. Laughing and talking and study can not coexist. If you would avoid the former, and the consequent punishment, and have your pupils give attention to the lessons assigned them, do not place them face to face. If you would not encourage conversation and whispering, and correspondence by signs, but would have your pupils devote themselves wholly to study, do not place them face to face. This can easily be carried out in any school-room.

Second, let them sit with their backs to the teacher's platform. This is for a school-room arrangement. When they come to recitation, as a general thing, they ought to face the teacher, unless it be a blackboard recitation, when they should face the board. But in the school-room, where the work is done, and during the time it is going on, they should sit with their backs to the instructor, who is presiding in the school-room. I am aware that this idea is not generally carried out. It is perhaps reversed in most cases.

It is even opposed by some; but a fair trial will satisfy any one that it operates with beautiful efficiency and gigantic power. I was gratified, two years ago, to learn from the able and successful head of the Protestant Episcopal High School of the city of Philadelphia, that they had adopted this arrangement in that institution, and to hear him express in strong terms, his appreciation of its superiority over any other arrangement.

In the month of August, 1852, I visited a school of high repute, and was shown through the establishment, and into a large and well-arranged school-room, for the accommodation of more than two hundred pupils. The moment we entered the room, I remarked to my friend that if I were presiding in that school-room, I would turn the desks all about. "Why," said he? I was giving some reasons, when, coming to one that seemed to carry conviction with it, said he, "Well, I never thought of that. But I have often noticed myself that I go to the other end of the room, when I wish to attend to any thing that I do not desire should attract the attention of my pupils." But, said I, your school-room arrangements ought not to create a necessity of this sort. That position in relation to your pupils should be chosen, which will give you the greatest power, and yet be permanent. Many things attract the attention of the young that you suppose will not. All these should be taken out of their sight.

What then are the reasons for this arrangement? The following may be briefly mentioned as some of them. 1st. Such an arrangement, in addition to being a most important aid in school government, best promotes the end for which children come to school. For what purpose do they come? They come to learn. To learn what? Not the shape of the teacher's platform, not the beauty of his face, the symmetry of his form, nor the fitness of his movements. They come to learn the lessons that the teacher assigns to them. For these lessons they are held accountable. They are reported delinquent if they do not know them. They become the subjects of discipline if they do not know them. The acquisition of these lessons is the great work to be accomplished in the school-room. One book after another is put into the child's hands, out of which to learn. The place to learn these lessons is the school-room. It is not one child out of ten, on an average, of those attending our district schools, that learns any of these at home, or out of the school-room.

When, then, you bring these children into this school-room, to learn their lessons, you ought to seat them with nothing before them but the lesson they have to learn. The teacher's platform should be behind them.

2d. The teacher is the greatest object of attraction in the school-room. He is in some sense the school; for when he goes the school stops until he returns, or another takes his place. Now, is it making the best arrangement for the pupils who have their lessons to learn, to place the teacher immediately before them, and thus draw off their attention from their books? He that should be the centre of attraction ought not to become the incidental cause of distraction.

3d. There is much that takes place at the teacher's platform that will attract attention. Pupils come to him for assistance. One comes to him with his Geography or Atlas; another with his Arithmetic; another with his Grammar; another for assistance in Mathematics or the Languages. These things are constantly occurring. They will attract attention. And is it a wise arrangement that tempts the pupil to neglect his lesson, or watch what is going on at the teacher's platform? Is it wise to gather these things into a central point in front of the pupils while they are engaged in study?

4th. A teacher may have cause to call up a pupil to caution or admonish him, or some one may drop into the school to see the teacher for a moment or two, or to call for a pupil. Now all these things, and many others that we have not time to name, ought to be removed from before the pupils, and placed behind them. They are all identified with the teacher and his platform. These, therefore, ought not to face the pupils, but to be behind them. The door of entrance to the room, too, ought to be in the rear of the pupils, and near the teacher's platform.

5th. If the pupils face the teacher they always know when he is looking at them, and will embrace the opportunity while his attention is taken up with hearing a class or some other engagement, to talk or neglect their lessons. But when the pupils sit with their backs to the teacher, they have the impression all the time that he is looking at them. If a pupil turns his face around to ascertain whether the instructor is looking at him, by the time he gets his face around the teacher's eye will be upon him. The very turning of his head will attract attention. The uniform impression on his mind is that the teacher's eye is upon him; and every effort he makes by turning his head to ascertain *whether* it is so convinces him that it *is* so. This constant impression on the mind of a pupil that the eye of his teacher is on him, has great influence in keeping him in his place and at his work.

6th. Analogy suggests that this arrangement is right. When a general arranges his army for battle, where does he take his position while the conquest is going on? Is it not behind them, where he can overlook the movements of every man, without interfering with the appropriate action of a single soldier? Shall the teacher, with his army of pupils, show them that which is to be conquered, and yet stand between them and their work?

2. Our *second* suggestion for the promotion of good government in a school, is to make frequent appeals to the honor, sense of propriety, sense of shame of the pupils. This may be done in various ways. By conversation in private, or by remarks to them in public. By picturing to them the shame that must attend bad conduct, and the good that will result from correct deportment.

The most effectual way of reaching them is by a system of daily reports in each study, and in conduct. Let this report be made known to the pupil. Let it be read out once a-week to the whole school, and make the reading of this report the occasion of remarks on the importance of application, obedience, respectful deportment, good habits, industry, perseverance, &c.

This report will exhibit the standing of each pupil, and the point at which he needs additional effort. No pupil likes to fall behind. He will thus be stimulated to exertion. Let this be followed, day by day, week by week, month by month, quarter by quarter, and let a monthly or quarterly report of each pupil's standing be sent to the parent. Thus the authority of the teacher will be sustained. If men *need* line upon line, and precept upon precept, *children* need it a hundred fold more.

Throw around this system of keeping a daily and weekly report of scholarship and deportment as much character as possible. Create a popular sentiment in its favor, and make every pupil *feel* that it is disgraceful to have bad record against him for future times to look back upon.

An appeal to a boy's sense of shame, or to his manliness, may often be made with success. I remember the following case which occurred a few years ago: I called out a class at a public examination. One boy failed to answer to his name. It was called out a second time. There was no response, but an awful pause. The gentleman who was to examine the class turned and said, what shall I do? Said I proceed with the examination. A moment after my eye rested on the boy who had come in after the time, in company with some of his family, who were present. I moved quietly down one side of the school-room, took a seat beside him, dropped a word in his ear, and he very promptly arose and went to his class, and passed an excellent examination. About a year afterwards a gentleman from Philadelphia who had been present, and watched the whole movement, said to me, I have often wanted to ask you what you said to that boy that did not answer to his name, when he was called out for his public examination. Said he when you sat down by him and spoke to him, he started up as if he had been shot. I replied, that as I wanted to save his feelings, and those of his friends who were present, from the effect of any public demonstration against him, I went to him, and taking my seat quietly beside him, whispered in his ear, "Albert, I want you to be a man, and go take your seat in your class, and pass your examination." I called him up afterwards and asked him why he did not come when called. He replied, that he was afraid he could not sustain his examination until I spoke to him.

Another instance. A high strung lad, on one occasion, drew his knife in the school-room, and threatened one of the instructors. The teacher came to me at the adjournment of the school, stated the case, and said that either that boy must leave or he would. I sent for the boy to come to my study. He was the son of a widowed mother. He was candid, generous. and talented. I took him by the hand and said, "Edward! what have you been doing?" He burst into tears and said, "I have been doing wrong." Said I, "are you willing to go to your teacher, and tell him you have done wrong?" "Yes sir!" said he promptly. "But," said I "you have placed yourself beyond the reach of the ordinary means of discipline, and it will be necessary for you either to make such an acknowledgment to your instructor as will satisfy him, or be dismissed from the school. Are you willing to make your acknowledgment as public as the offense was?" "Yes sir," was his second prompt reply—an answer I scarcely expected. Said I, "come to me in the morning." In the mean time, I saw the instructor and asked him, if he would be satisfied with a public apology. He replied that he would, if in my judgment it would be sufficient. I told him it ought to be. That the ends of discipline would be fully met, and a happy influence might be exerted. Half-past eight o'clock the next morning brought Edward to the study. I asked him how he felt. Said he "I feel badly, and am ready to do whatever you wish." "Then," said I, "after the school is opened, arise in your place and say to your instructor, and to your schoolmates too, that you did wrong in using the disrespectful language and action on yesterday afternoon, and you wished thus publicly to make an apology and to ask pardon." It was done with a clear but tremulous voice, and every word made its impression. Edward sat down to weep, and there was the silence of the grave. The teacher arose, full of feeling, commended his offending but now penitent pupil, and took him by the hand, and closed most impressively a scene, the moral effect of which was more than electric. That boy is now preaching the gospel, and that instructor adorns the pulpit of one of the most flourishing churches in Virginia. The boy never forgot the lesson then taught him, while his expulsion might have proved his ruin.

3. For most cases these milder modes of discipline will answer. But there are cases that they will not reach. And this brings us to another mode by which good government in a school may be maintained. It accords exactly with the old idea of discipline, as we have it in the words of old Father Chaucer in the following (way.) "As it fareth by children in schoole, that for learning arne beaten when their lessons they foryeten, commonly after a good disciplening with a yerde, they keep right wele doctrine of their schole."

This is corporal punishment. Now is this desirable, or admissible, or necessary? We answer it is not desirable. But it is admissible and necessary in a system of school government.

The system of indiscriminate flagellation for small offenses is not a good one. Corporal punishment before the whole school, as a general thing, is not good. To this there may be exceptions. There is, however, in the minds of many, a sqeamishness on the subject of corporal punishment. A teacher is often placed in a difficult position. He must please his patrons. He must please his pupils. He must please himself. He will do well to satisfy himself first, and take independent ground. A judicious teacher will be sustained in the use of the rod, as a general thing, even by those who profess to make objection to it.

Some years ago a gentleman of some eminence called at the High School to inquire about the institution, with a view, as he stated, to locate his boys, of whom he had several. After perusing a circular which had been handed to him, and asking a number of questions, he inquired as to our modes of discipline. I commenced describing to him our system; but before proceeding far, he asked, rather abruptly, "Do you use the rod?" "We do," said I, "whenever we think there is need of it. It comes in as a part of our system, as a last resort. When a boy can not be reached by other modes of discipline, and becomes difficult of control, we resort to the rod, and if that does not reach his case, send him away."

Said he again, with some emphasis, "I am opposed to corporal punishment."

I replied, that we were satisfied that there were cases in which it was necessary and useful. I described a case that had but recently occurred in the school. When I got through, he said, "well, I think such a boy ought to be flogged; but my boys are not such." I remarked that we could not receive a boy, with the understanding on *his* part, that he was not to be punished in this way, if we thought it expedient. The gentleman left. From his decided tone on the subject of the use of the rod, I supposed we should never see him again. After the lapse of two months, however, when we were some distance on in another session, I was summoned to the hall, one day, and whom should I meet but the gentleman who had so fully declaimed against the rod, and who seemed so particularly concerned about the manner in which his boys should be disciplined. Said he, "I have brought you my four boys." I inquired where he had been since he visited us. He replied, that he had traveled through New England, and been at some school localities on the North River, and had come back to New Jersey. Some general instructions were given, but not a word about corporal punishment. A number of years elapsed before the last of these boys left school, and there was necessity, on more than one occasion, in the case of some of them, for resort to this mode of punishment, and with decidedly good effect. But we never heard a word more about the modes of discipline.

If children are well governed in a school, and taught proper subordination, parents will not complain of the particular forms of discipline. The private and judicious use of corporal punishment should have a place in a good system of school government.

No judicious board of trustees should put a person into the school-room to train and govern and keep in order a company of youth, and yet tie his hands on this subject. Is it right, indeed, to say to a teacher, govern these youth, and yet not allow him the judicious use of such means as are necessary rightly to execute his work? Surely it is enough for a teacher to endure the vexation, weariness, and anxiety and toil incident to his position without being thus trammeled.

4. Let the heart be cultivated.—

Nothing will promote good government in a school-room more than the cultivation of the heart. Our ultimate appeal must be here. Our highest hope for good results, whether in the school-room or out of it, is here. "Out of the heart are the issues of life." This is the fountain. This is the citadel. Get this and you get all. When Sebastopol falls the Crimea will be taken. It is a fountain of good or evil. If this is rightly regulated, all will be well. Hence flow the streams of obedience or of disobedience, of subordination or insubordination. Hence comes that which promotes the good government of your school or sets it aside. But how shall the heart be cultivated so as to aid the government of the school. It may be done by the teacher's example. It is an old maxim that example speaks louder than precept. The example of a teacher exerts great controlling influence over his pupils. That example should be promotive of order and good government. He should himself be a living exhibition of the power of self-government. For a man may sometimes defeat the ends of government by governing too much, or by not governing himself.

A teacher's example, then, has influence, and nowhere can that influence be brought to bear more directly upon his pupils, and for their good, and for the support of order and good government, than in the school-room. The example of a good man will be felt, and powerfully too, by his pupils. A process of assimilation is constantly going on. The more they are with him the more they will be like him.

The heart may be cultivated by frequent appeals to the conscience. And the conscience may be kept alive by bringing the young into contact with the truth. Let them hear the Sacred Scriptures read by the teacher. Let them read them themselves. Let them be brought into contact, every day, by a mild necessity, with the *Truths of Revelation*, and let these truths be impressed upon them. This will improve the heart. Secure the hearts and consciences of your pupils and your government will be strong.

Let the truth of inspiration come in among them, with its influence, and your hands will be upheld. Let it come as the rains of Heaven come, to irrigate and bless. Let it come, as the dew-drop comes, to sparkle and adorn, while it gives life. Let it come, as the air of heaven comes, so full and deep and fresh and free that man may walk in it, breathe and live and long to be immortal. As you would open your windows, and ventilate your rooms, and let in the fresh atmosphere, so let in the fragrant atmosphere evolved from the sacred word.

So let our youth be modeled, governed, disciplined, and brought under control, that our district schools, by the very influence they exert upon them, may become sources of the highest blessing.

Having thus learned to be governed under the most favorable circumstances, having thus breathed an atmosphere that is pure and healthy and invigorating and life giving, they will come upon the stage of life like men, men fully formed, men not driven to and fro by the blind impulses of unruled passion, men not tossed upon the surging waves of unbridled lust, to be dashed against the rocks of dissipation; but men, each one prepared to sway a sceptre, each one to be a sovereign!

In conclusion, let it not be thought out of place to remark here, that, with well-regulated common schools, supplied with well-educated, competent and efficient teachers, who have, in themselves, authority for the execution of their noble work and earnest longings for its right accomplishment, we have a powerful enginery that can scatter to the winds all apprehensions of danger from the influx of foreign words to our language. Providence has made our language like our country—a vast reservoir. The streams are flowing into it. Let them flow from mountain, hill, and plain; let the tide roll up from ocean, sea, or river; let every nation, tongue, and dialect send in its tribute to swell the mighty aggregation. This boundless deep of words has in itself the means of its own purification. Its very surgings give it life. The high conservative power of general education is the means of its healthy diffusion; and truth is the tower of its strength. Truth! as it beams out in every day's recitation, as it is exhibited in every department of nature, as it stands in demonstration on the blackboard. But most of all, Truth, as it looms up in magnificent proportions from the sacred pages, especially in him who was himself the truth. A system of education thus freighted with the truth, systematized by efficient discipline, enforced by able teachers, and sustained by an enlightened public sentiment, may well become the grand receptacle of every tongue. Then there will exist a great American language which will make the world its debtor, and by some beautiful electrotyping process, transfer its own impression, adorned with civil and religious liberty, to every land on the face of the earth.

IX. PLAN OF CENTRAL AGENCY

FOR THE ADVANCEMENT OF EDUCATION IN THE UNITED STATES.

The following Plan for "the Increase and Diffusion of Knowledge" of Education, and especially of Popular Education, and plans for its improvement through the Smithsonian Institution; or the American Association for the Advancement of Education was submitted to the Association by Hon. Henry Barnard.

The Institution [or Association] to appoint a secretary or agent; with a salary, and to furnish a room for an office and depository of educational documents and apparatus, and beyond this not to be liable for any expense.

Agenda by the secretary or agent:

1. To devote himself exclusively to the "increase and diffusion of knowledge" on the subject of education, and especially of the condition and means of improving Popular Education, and particularly

2. To answer all personal or written inquiries on the subject, and collect and make available for use, information as to all advances made in the theory and practice of education in any one State or country.

3. To attend, as far as may be consistent with other requisitions on his time, and without charge to the funds of the institution, [or Association] Educational Conventions of a national and State character, for the purpose of collecting and disseminating information.

4. To edit a publication, to be entitled the American Journal and Library of Education, on the plan set forth in the accompanying paper (A.)

5. To collect
   (a) Plans and models of school-houses and furniture.
   (b) Specimens of maps and other material aids of education.
   (c) Educational reports and documents from other States and countries.

6. To institute a system of educational exchange between literary institutions in this and other countries.

7. To make arrangements, and effect. if practicable, at least one meeting or conference of the friends of educational improvement in Washington [or elsewhere] every year.

8. To submit annually a report in which shall be given a summary of the progress of education, in each State, and as far as practicable, in every country

A.

PLAN OF PUBLICATION.—A quarterly or monthly issue under the general title of the AMERICAN JOURNAL AND LIBRARY OF EDUCATION.

I. A JOURNAL OF EDUCATION, to be issued in quarterly or monthly numbers, embracing articles on systems, institutions and methods of education, and the current intelligence of literature and education, and to make an octavo volume annually of at least 600 pages.

II. A LIBRARY OF EDUCATION; to consist of a series of independent treatises on the following [among other] subjects, to be issued in parts, and to be forwarded with the Journal to subscribers; the several parts or treatises to make an octavo volume of at least 600 pages per year.

1. A CATALOGUE of the best publications on the organization, instruction and discipline of schools, of every grade, and on the principles of education, in the English, French, and German languages.
2. A HISTORY OF EDUCATION, ancient and modern.
3. AN ACCOUNT OF ELEMENTARY INSTRUCTION IN EUROPE, based on the reports of Bache, Stowe, Mann, and others.
4. NATIONAL EDUCATION IN THE UNITED STATES; or contributions to the history and improvement of common or public schools, and other institutions, means and agencies of popular education in the several States (B.)
5. SCHOOL ARCHITECTURE; or the principles of construction, ventilation, warming, acoustics, seating, &c., applied to school rooms, lecture halls, and class rooms, with illustrations.
6. NORMAL SCHOOLS, and other institutions, means and agencies for the professional training and improvement of teachers.
7. SYSTEM OF PUBLIC EDUCATION FOR LARGE CITIES AND VILLAGES, with an account of the schools and other means of popular education and recreation in the principal cities of Europe and in this country.
8. SYSTEM OF POPULAR EDUCATION FOR SPARSEDLY POPULATED DISTRICTS with an account of the schools in Norway and the agricultural portions of other countries.
9. SCHOOLS OF AGRICULTURE, and other means of advancing agricultural improvement.
10. SCHOOLS OF SCIENCE applied to the mechanic arts, civil engineering, &c.
11. SCHOOLS OF TRADE, NAVIGATION, COMMERCE, &c.
12. FEMALE EDUCATION, with an account of the best seminaries for females in this country and in Europe.
13. INSTITUTIONS FOR ORPHANS.
14. SCHOOLS OF INDUSTRY, or institutions for truant, idle or neglected children, before they have been convicted of crime.
15. REFORM SCHOOLS, or institutions for young criminals.
16. HOUSES OF REFUGE, for adult criminals.
17. SECONDARY EDUCATION, including 1. institutions preparatory to college, and 2. institutions preparatory to special schools of agriculture, engineering, trade, navigation, &c.
18. COLLEGES AND UNIVERSITIES.
19. SCHOOLS OF THEOLOGY, LAW, AND MEDICINE.
20. MILITARY AND NAVAL SCHOOLS.
21. SUPPLEMENTARY EDUCATION, including adult schools, evening schools, courses of popular lectures, debating classes, mechanic institutes, &c.
22. LIBRARIES, with hints for the purchase, arrangement, catalogueing, drawing and preservation of books, especially in libraries designed for popular use.
23. INSTITUTIONS FOR THE DEAF AND DUMB, BLIND, AND IDIOTS.
24. SOCIETIES FOR THE ENCOURAGEMENT OF SCIENCE, THE ARTS AND EDUCATION.
25. PUBLIC MUSEUMS AND GALLERIES.
26. PUBLIC GARDENS, and other sources of popular recreation.
27. EDUCATIONAL TRACTS, or a series of short essays on topics of immediate practical importance to teachers and school officers.
28. EDUCATIONAL BIOGRAPHY, or the lives of distinguished educators and teachers.
29. EDUCATIONAL BENEFACTORS, or an account of the founders and benefactors of educational and scientific institutions.
30. SELF-EDUCATION; or hints for self-formation, with examples of the pursuit of knowledge under difficulties.
31. HOME EDUCATION; with illustrations drawn from the Family Training of different countries.
32. EDUCATIONAL NOMENCLATURE AND INDEX; or an explanation of words and terms used in describing the systems and institutions of education in different countries, with reference to the books where the subjects are discussed and treated of.

The Series, when complete, will constitute an ENCYCLOPEDIA OF EDUCATION.

B.

NATIONAL EDUCATION IN THE UNITED STATES; or Contributions to the History and Improvement of Common or Public Schools, and other means of Popular Education.

I. Survey of the principal agencies which determine the education of a people with an explanation of the American nomenclature of schools and education.

II. A brief sketch of the action of the General Government in the matter of education and schools, *i. e.*, Appropriation of Public Lands for educational purposes in the several States, Military Academy at West Point, Naval School at Annapolis, Education of the Indians.

III. Legislation of each State respecting education, with special reference to the organization, administration, and support of common or public schools, with an outline of the system in operation in 1854, or 1855, in each State.

IV. Condition of education in each State, according to the Census returns of 1850, and other reliable sources of information, arranged under the following heads:

1. Elementary or Primary Education.
2. Academic or Secondary Education.
3. Collegiate or Superior Education, including such institutions as embrace a course of study usually made the condition of granting the degree of Bachelor of Arts.
4. Professional or Special Education.
    - a. Theology.
    - b. Law.
    - c. Medicine.
    - d. Engineering.
    - e. Agriculture.
    - f. Mechanics.
    - g. Commerce.
    - h. Teaching.
    - i. Fine Arts.
    - j. Deaf-mutes.
    - k. Blind.
    - l. Idiots.
5. Supplementary Education.
    - a. Evening Schools.
    - b. Lyceums.
    - c. Courses of Lectures.
    - d. Libraries of Circulation.
    - e. Libraries of Reference.
    - f. Adult Schools.
    - g. Mechanic Societies.
6. Reformatory Schools.
7. Orphan Houses.
8. Societies for the encouragement and advancement of science, the arts and education.

Under each of the above classes of educational institutions and agencies, a distinction will be made, as far as practicable, between public and private, incorporated and individual, general and sectarian, for male and female, city and country. Under each State an outline of the system and a summary of the statistics of education will be given for all cities having more than 10,000 inhabitants.

V. Educational funds—State, Municipal and Institutional; amount realized from tax on property, from permanent funds, and from tuition paid by scholars.

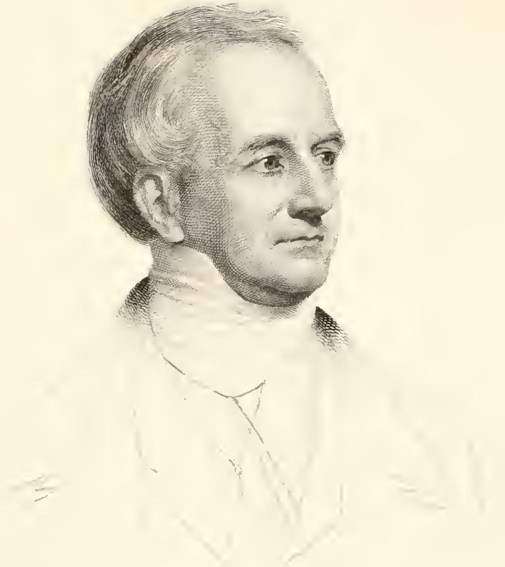
VI. Educational buildings; remarks on their general condition, with illustrations of a few of the best specimens of each class of buildings.

VII. Catalogue of Documents relating to the educational systems and institutions in each State—with an Index referring to the most important topics presented or discussed in each document.

VIII. Statistical Tables, with a summary of those educational agencies, such as the press, ecclesiastical organizations, facilities of locomotion, etc., which determine the direction, and defeat or advance the education given in schools.

IX. A brief statement of the educational systems and statistics of the most civilized countries of Europe.

[*The above work is in preparation by Henry Barnard, of Connecticut, who has visited nearly every State to collect documents, and instituted personal observations and inquiries respecting the several points presented in the above plan.*]



Abbott Lawrence

THE

American Journal of Education

AND

COLLEGE REVIEW.

No. II.—JANUARY, 1856.

I. EDITORIAL INTRODUCTION.

The beautiful Frontispiece, with which we introduce this number of our Journal and Review, will greet the reader with a pleasant impression of the honor due to the memory of generous men. It may be received also as a pledge of our intention to embellish our numbers, as often as may be practicable, with similar engravings of distinguished benefactors and educators.

Our first number, issued in August last, was prepared under peculiar circumstances, as was stated in the Prospectus, and could not be offered as a specimen of our proposed publication. It has met, however, with a decidedly favorable reception, and the programme of our work has been everywhere received with expressions of approbation and encouragement.

The present, being designed as a specimen number, several thousands of it will be sent to persons not yet subscribers; and the Editors beg leave to say a few words in elucidation of their general plan, and to ask for their great undertaking, the favor of the friends of education.

It was Lord Bacon's aphorism, that nature is to be subdued and governed only by obeying her laws; and it is a maxim of common sense. On this principle the wheel is turned on its axis, the horse is guided by the bit, and the ships, "though they be so great, and are driven of fierce winds, are turned about, by a very small helm, whithersoever the governor listeth." And obedience to the laws of nature is no less necessary to the success of all agencies and powers in the sphere of morals and of mind. So in launching a new Periodical, which is designed not to *float* merely, on the tide of public opinion, but to *influence* it, the wisdom of adaptation is the highest wisdom. The public mind, on whose favor such a work is necessarily dependent for support, must first be satisfied, or it can neither be influenced nor improved.

It is thus to satisfy the readers of this number that we here reaffirm, and state more definitely than we have yet done, our object and motive in undertaking the work before us.

First of all it is quite apparent that such a work is needed. There are educational periodicals in several of the States and in Canada; and we would by no means interfere with their circulation, on their several fields, but would gladly promote it. Most of them are ably conducted, and are doing good service.* But they are not national in their character or design; and connected, as most of them are, with State organizations, they are necessarily occupied, more or less, with matters of mere local interest. No one of them has even proposed to make itself a medium of educational intelligence and discussion for the whole country. On the contrary, their conductors have felt the want of a periodical of larger scope and of more extensive correspondence, whose central position would enable it to combine and nationalize the information to be derived from many local centers, and make it available for the benefit of all. They have accordingly themselves been among the first and most earnest in welcoming our proposal to publish a National Journal of Education. Enterprising teachers also—the Faculties of Colleges and Professional Seminaries, the Principals of Academies and Classical Institutes, male and female, and the administrators of public instruction—all, as far as we have heard, have expressed their warm approval of our design. There appears, indeed, to be but one mind, among the enlightened friends of education, as to the need of such a publication as we propose and have already commenced.

The design being approved, the inquiries will arise in many minds: Will it be practicable to produce such a work as is thus extensively known and felt to be needed? Will it be possible to induce the teachers of institutions of various classes, and of different religious denominations, and the advocates of conflicting systems of instruction, all to unite in earnest discussion for the benefit of all? Will they cordially agree in communicating, to a common center, the necessary information? Will the North agree with the

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* *Massachusetts Teacher*, Boston; *Connecticut Common School Journal and Annals of Education*, New Britain, Ct.; *Rhode Island Schoolmaster*, Providence, R. I.; *Journal of Education* for Upper Canada, Toronto; *New York Teacher*, Albany, N. Y.; *The Student and Schoolmate*, New York; *Pennsylvania School Journal*, Lancaster, Pa.; *Ohio Journal of Education*, Columbus, O.; *Michigan Journal of Education and Teachers' Magazine*, Detroit, Mich. There may be one or two Journals of Education recently published in other States, but the above list includes all that have been received by us.

South, and the South with the North, the East with the West, and the West with the East, in reciprocating that which, on either side, will bless the giver more than the receiver?

On these points there are, doubtless, difficulties to be encountered and embarrassments to be met. It will involve great labor, and persevering systematic effort, to gather the required information from sources so various and widely separated. But we possess great facilities in this line, and while we can not even hope to accomplish all that might be desired, we shall earnestly endeavor to approximate the point of perfection, in the matter of educational intelligence; and we can not doubt the willingness of many, in all parts of the country, to aid us in this endeavor.

As to differences of religious belief and the peculiarities of the various religious denominations, we have taken counsel of the wisest of our friends, of different church-relations, and feel assured that we have prescribed to ourselves a principle, on which we may reasonably expect the cordial co-operation of all Christian educators. It is, that in maintaining the importance of moral and Christian culture in all systems and stages of education, we will avoid the expression of denominational preferences. On this principle it would seem that liberal-minded men, of every name, may unite in their advocacy of all that is primarily essential in a religious education.

In respect to any antipathies or antagonisms, which may be supposed to exist between different systems of instruction, or classes of institutions, a sincere desire to avail themselves of the wisdom and experience of others, as well as to communicate their own, it is presumed, will induce many, on every side of these debatable questions, to welcome the discussion of them, in a Journal which will be as open to the one as to the other, and will be the servant of all, for the sake of the light and instruction which may thus be rendered available for their common benefit. Patriotism and the love of learning, and every principle of good citizenship, to say nothing of the laws of Christian kindness, will dictate a friendly discussion between those who are the widest asunder in their views. Thus difficulties will be obviated and mountains will become planes.

In relation also to sectional animosities, if any exist, it is gratifying to remark, that the causes of them are all outside of the field of educational effort and discussion. The legislative enactments of each State on these subjects, being entirely independent of those of all the other States, each will of course adapt its system of public instruction to whatever may be peculiar in the condition of its people; and of the public systems, as they exist in the several States and in large cities, it will be an important part of our work to publish accurate and reliable statements and histories. Respecting these, however, as matters of history and of fact, there will be no ground of dispute. They will be the property of all for the purposes of comparison and improvement. Still there will remain a vast range of topics relating both to systems and institutions, and to the principles of education itself, which will be of common and equal interest to all. These will be legitimate subjects of discussion and debate; and in admitting them freely to our pages, we propose to recognize no privilege of one State over another, but to encourage, by every means, the independent expression and the friendly interchange of the views of experienced Instructors, of all departments, and of every section of the country, for the common benefit of all the States, Provinces, and Territories of the American Continent.

Respublica literarum est totius mundi—the commonwealth of learning is the whole world—and all mankind are interested in the right education of every state and nation. It is to be presumed, therefore, that no true friend of universal education, of whatever section or party, will be reluctant to co-operate with all other friends of the same, in promoting such measures as may be deemed expedient, after due deliberation and discussion, to improve and advance the moral and intellectual culture of so great a people—for they are essentially one people—as are now and will hereafter be embraced in the United States and the adjoining Provinces and Countries.

We have intimated our design to make this work such, that it shall not float on the public mind as a mere thing of amusement, but shall influence it. On this point we would not be misunderstood. It is not that we propose ourselves as leaders in this matter. It is not that we have any favorite schemes of education to advance, which we are not willing to subject to the severest scrutiny. But our object is free discussion, to which we shall invite the contributions of the most able writers and educators of all classes, whose experience in their calling will entitle them to be heard. It is in this way, and less by our own contributions, that we hope to construct a work, whose reasonings, on themes of the highest interest to the human race, will take deep hold upon the thoughts of men; not alone of teachers by profession, but of parents, and citizens, and legislators, and of all true men and women, and which shall thus at once guide the public mind to the adoption of the wisest measures, and urge it to higher resolves and more strenuous endeavors, until ample provision shall be made, in all our States, for the right education of the young, of both sexes, and of all conditions and callings.

P.

II. UNCONSCIOUS TUITION.

BY REV. FREDERIC D. HUNTINGTON, D.D.,

Preacher and Plummer Professor of Christian Morals in Harvard University.

By unconscious tuition, I mean that part of a teacher's work which he does when he seems not to be doing any thing at his work at all. It has appeared to me that some of the most nutritive and emphatic functions of an instructor are really being performed while he seems least to be instructing. To apprehend these fugitive and subtile forces, playing through the business of education with such fine energy, and, if possible, to bring them within the range of a practical dealing and discipline, is the scope of my present design. If the topic should fail of entertainment or profit, it will at least yield me this negative advantage, that it will not tempt me to traverse any pre-existing debate, or prejudice, or clique, or dogma.

The central thought of my doctrine is based on the presumption that the ultimate and total object of the teacher's profession is not the communication of knowledge; nor even, according to the favorite modern formula, the stimulating of the *knowing faculty*, if by the knowing faculty we understand a faculty quite distinguished and separate from the believing faculty, the sensibility, and the will. It has been generally admitted, for a long time, that education does not consist in inserting facts in the pupil's memory, like specimens in a cabinet, or apples dropped into an empty barrel, or freight stowed in the hold of a ship. But not only must we dismiss those mechanical resemblances, which liken the mind to a store-house, a granary, a museum, or a library; we must also carry our conception of learning above the notion of an agile and adroit brain. Education does not consist in provoking bare intellectual dexterity, any more than in presenting ascertained truth to the intellectual perceptions; nor in both together. Education involves appeals to faith, to feeling, to volition. The realm of positive science shades off on every side—not by abrupt transition, but by imperceptible gradations—into the realm of trust; nor does science consult her dignity more than her modesty when she undertakes to sharpen the partition-line of hostility between knowledge and belief. So does the true training of the mind implicate an engagement of the affections, including taste or the sense of beauty, and love or the sense of good, both the mind's freedom and its harmony being equally dependent on a healthy heart. And so, again, the understanding and the feelings wait on that brave executor, the will; and nobody can be wise who leaves its scholarship neglected. In a word, in any liberal or Christian acceptance, education is not the training of the mind, but the training of the man. Being the discipline of an organized subject, it is organic in its own nature. No analytical classification can partition off the elements of humanity like the ingredients of a soil. Even of a tree we can not rear a single branch independently of the others, unless we kill the others back by violence. One-sidedness has been the vice of all systems of education hitherto, and every legitimate advance has been an approach to the recognition of the unity and indivisibility of the educated being as a living and infinite soul.

Let us proceed, on the ground of this principle, with our proper theme. My main propositions are these three: 1st. That there is an educating power issuing from the teacher, not by voice nor by immediate design, but silent and involuntary, as indispensable to his true function as any element in it. 2d. That this unconscious tuition is yet no product of caprice, nor of accident, but takes its quality from the undermost substance of the teacher's character. And 3d. That as it is an emanation flowing from the very spirit of his own life, so it is also an influence acting insensibly to form the life of the scholar.

1. I remind the teacher of a fact, which I presume may have been some time disclosed to him, in his dealings with almost any truth in its more secret relations, viz., that all true wisdom involves a certain something that is inexpressible. After all you have said about it, you feel that there is something more which you never can say, and there is a frequent sensation of pain at the inadequacy of language to shape and convey—perhaps also the inadequacy of the conceptions to define—that secret and nameless thought, which is the delicious charm and crown of the subject, as it hangs, in robes of glory, before your mind. Any cultivated person, who has never been oppressed by this experience, must be subject, I should say, to dogmatism, pragmatism, conceit, or some other comfortable chronic infirmity. Where the nature is rich and the emotions are generous, there will always be a reverential perception that ideas only partly condescend to be embodied in words. So it is always found that the truest effects of eloquence are where the expression suggests a region of thought, a dim vista of imagery, an oceanic depth of feeling, beyond what is actually contained in the sentences. You have to judge an orator as much by what he leaves out as by what he puts in. *He* uses words with the true mastery of genius, who not only knows

how to say exactly and lucidly, and with the fewest sounds, the thing he thinks, but how to make what he does say indicate that diviner part of wisdom which must remain forever unsaid. The cleanest rhetorical directness is united with the strongest sense of mystery. You hear thoughts, perfectly within the range of the understanding, sublimely uttered, and you are made aware of the nearness of a world whose thoughts are more sublimely unuttered. Instances at once occur in Shakspeare, in Sir Thomas Browne, in Dante, and, more than in any other living writer, I think, in Thomas De Quincy. So sings old Marlowe:

"If all the pens that ever poets held
Had fed the feeling of their masters' thoughts,
And every sweetness that inspired their hearts,
And minds, and muses on admired themes;
If all the heavenly quintessence they 'still
From their immortal flowers of poesy,
Wherein, as in a mirror, we perceive
The highest reaches of a human wit;
If these had made one poem's period,
And all combined in beauty's worthiness,
Yet should there hover in their restless heads,
One thought, one grace, one wonder, at the best,
Which into words no virtue can digest."

Nature herself gives us a broad hint to the same purpose. Just when she discloses to our admiration any of her grandest pictures or sculptures, she shuts our lips; "My children, be still," that august schoolmistress sternly says to us, the moment she lifts the vail from before any special majesty or splendor. When we are most moved in any way, she thus prisons our souls in dumb solitude, and makes us feel the utter helplessness of our tongues. If we are presumptuous enough to talk, she secretly rebukes our babbling. The less imposing and lighter aspects of nature permit us to be sociable; but when her diapason-voice sounds, our impertinent ones must cease. A loquacious company may prattle and jest while they float among the winding straits of a picturesque harbor, shut in by the limitations of that narrow scenery; but, if they have souls within them, they will grow thoughtful and silent as they sail out upon the infinite ocean, amid the sublime simplicity of the waves and the sky. They may chatter and laugh together in the variegated and blooming valley; but when they go up among the eternal hills of God, and look off from those solemn pillars of his heaven, an invisible hand will seem to draw them apart from one another, inspiring them with a wonder that no dialect can articulate. They may gossip in gardens of sunshine, but one roll of celestial thunder hushes them.

I am not pretending that in the ordinary processes of juvenile instruction one often arrives at any such impressive expansion of thought, or any such intensity of feeling. I shall not be so understood. Of course a class in spelling, a recitation in arithmetic, the grammatical corrections in an exercise in composition, the daily discipline of three-score boys and girls, will seldom raise those vast and reverential sentiments. My purpose here is simply to show that some of the deepest and most powerful impressions are made on our minds, independently of any spoken or written words, by influences, by signs, by associations beyond any speech. And this point lies close to my argument. You know the remark they used to make about Lord Chatham; that everybody felt there was something finer in the man than any thing he ever said. We are taught, and we teach, by something about us that never goes into language at all. I believe that often this is the very highest kind of teaching, most charged with moral power, most apt to go down among the secret springs of conduct, most effectual for vital issues, for the very reason that it is spiritual in its character, noiseless in its pretensions, and constant in its operation.

Besides, I do undertake to say, only by the way, that in the teacher's profession, as in every other, we are not to judge of the possibilities, or the limitations of the calling, by its common aspects, or its every-day repetition of task-work. I protest against the superficial and insulting opinion, that, in the education of children, there is no room for the loftiest intellectual enterprise, and no contact with divine and inexpressible wonders. Any teacher that so judges his vocation by its details belittles it. The school-room, no less than the philosopher's laboratory, the studio, or the church itself, opens upward into God's boundless heaven. Each of these very sciences I have named has moral relations, and terminates in spiritual mystery. And when you awaken a feeling of that great truth in your pupil by the veneration, the earnestness, and the magnetic devotion of your own mind, you have done him a service no less essential to the completeness of his education, than when you have informed his understanding of certain scientific facts. Arithmetic, for instance, ascends into astronomy, and there you are introduced to laws of quantity, which make the universe their diagram—to the intellectual magnitudes of La Place and Newton—to the unsearchable empire of that religion which feels after the God of Arcturus and the Pleiades. The rules of grammar are only intelligible formularies that lie on the outmost boundary of an inexhaustible study. And the government of your pupils, what is it but the faint and erring endeavor to transfer, into that little kingdom you administer, the justice and the love which are the everlasting attributes of the Almighty himself, applying them even there to immortal souls? Let us not wrong the dignity of such an employment by denying its connection with things unspeakable.

I return, however, to the direct path of my subject. And while I maintain that the scholar ought by all means to learn, from the sympathies of the teacher's spirit, that every study he follows is intertwined with moral obligations, and is related to a divine source, in ways which no text-book does or can lay down, I proceed to more specific statements. It is not in respect to particular branches of instruction, but in respect to what we may call *the moral power of the teacher's own person*, as something, indeed, in which the right action and the best success of *all* kinds of instruction are bound up, that I affirm the necessity of this unspoken and unconscious influence.

If we enter successively a number of school-rooms, we shall probably discover a contrast something like this. In one we shall see a presiding presence, which it will puzzle us at first sight to analyze or to explain. Looking at the master's movements—I use the masculine term only for convenience—the first quality that strikes us is the absence of all effort. Every thing seems to be done with an ease which gives an impression of spontaneous and natural energy; for, after all, it *is* energy. The repose is totally unlike indolence. The ease of manner has no shuffling and no lounging in it. There is all the vitality and vigor of inward determination. The dignity is at the farthest possible remove from indifference or carelessness. It is told of Hercules, god of real force, that "whether he stood, or walked, or sat, or whatever thing he did, he conquered." This teacher accomplishes his ends with singular precision. He speaks less than is common, and with less pretension when he does speak; yet his idea is conveyed and caught, and his will is promptly done. When he arrives, order begins. When he addresses an individual or a class, attention comes, and not as if it was extorted by fear, nor even paid by conscience as a duty, but cordially. Nobody seems to be looking at him particularly, yet he is felt to be there, through the whole place. He does not seem to be attempting any thing, elaborately, with anybody, yet the business is done, and done remarkably well. The three-fold office of school-keeping, even according to the popular standard, is achieved without friction and without failure. Authority is secured, intellectual activity is stimulated, knowledge is got with a hearty zeal.

Over against this style of teacher we find another. He is the incarnation of painful and laborious striving. He is a conscious perturbation; a principled paroxysm; an embodied flutter; a mortal stir; an honest human hurly-burly. In his present intention he is just as sincere as the other. Indeed, he tries so hard that, by one of the common perversions of human nature, his pupils appear to have made up their minds to see to it that he shall try harder yet, and not succeed after all. So he talks much, and the multiplication of words only hinders the multiplication of integers and fractions, enfeebles his government and beclouds the recitation. His expostulations roll over the boys' consciences like obliquely-shot bullets over the ice; and his gestures illustrate nothing but personal impotency and despair.

How shall we account for this contrast? Obviously there is some cause at work in each case other than the direct purpose, the conscious endeavor, the mental attainments, or the spoken sentiments. Ask the calm teacher—him who is the true *master*—master-workman, master of his place and business—ask him the secret of his strength, and he would be exceedingly perplexed to define it. Tell the feverish one that his restlessness is his weakness, and he will not be able to apply an immediate correction. What are we obliged to conclude, then, but that, in each of these instances, there is going on an unconscious development of a certain internal character or quality of manhood, which has been accumulating through previous habits, and which is now acting as a positive, formative and mighty force in making these boys and girls into the men and women they are to be? And it acts both on their intellectual nature and the moral; for it advances or dissipates their studies, while it more powerfully affects the substance and tendencies of character.

Now there are different organs in our human structure, which serve as media for expressing and carrying on this unspoken and unconscious influence, so that it shall represent exactly what we are. That is, to atone for the defects of language, and moreover, to forestall any vicious attempts we might make at deception, the Creator has established certain signs of his own which shall reveal, in spite of our will, the moral secret.

One of these is the temper; or, rather, that system of nervous network, by which temper telegraphs its inward changes to the outward world. The temper itself, in fact, is one of the ingredients in our composition most independent of immediate and voluntary control. Control over it is gained by the will only through long and patient discipline; and so it is an effectual revealer of our real stuff. It acts so suddenly, that deliberation has not time to dictate its behavior; and, like other tell-tales, it is so much in a hurry, that an after-thought fails to overtake the first message. It lets the hidden man out and pulls off his mask. This temper is doing its brisk publishing business in every school-house. No day suspends its infallible bulletins, issued through all manner of impulsive movements and decisions. Every pupil reads them, for there is no cheating those penetrating eyes. He may not stop to scrutinize, or even state to himself his impression ; but he takes it; it enters into him; it becomes a part of himself. By the balm or the irritation, by the sweetness or the sourness, by his tacit admiration or his ugly resistance, he is being fashioned under that ceaseless ministry. It is either the dew of genial skies enriching him, or it is the continual dropping of a very rainy day, which Solomon himself compares to a "contentious woman," though he probably had not a cross "school ma'am" in his mind. Nor are these formative phases of temper confined to the two extremes commonly suggested, of anger and amiability. They run through an endless variety of delicate intermediate shadings. They partake of the whole circle of dispositions. They are as many as the degrees of virtue and vice, honor and shame. Every teacher moves through his school and conducts his exercises, a perpetual and visible representation to all under him of some sort of temper. When he least thinks it, the influence keeps going out. The sharpest self-inspection will scarcely inform him, moment by moment, what it is; but his whole value as a guide and companion to the young is determined by it; his whole work is colored by it. Penalties imposed in passion are proverbially the seeds of fresh rebellions, and the relative impressions of milder moods are no less certain. Whatever temper you have suffered to grow up in the gradual habit of years, that will get a daily revelation over your desk as visible as any map on the walls.

Another instrument of this unconscious tuition is the human face. There is something very affecting in the simple and solemn earnestness with which children look into their elders' faces. They know by an instinct, that they shall find there an unmistakable signal of what they have to expect. It is as if the Maker had set up that open dial of muscle and fiber, color and form, eye and mouth, to mock all schemes of concealment, and decree a certain amount of mutual acquaintance between all persons, as the basis of confidence or suspicion. All the vital spirits of brain and blood are ever sending their swift demonstrations to that public indicator. It is the unguarded *rendezvous* of all the imponderable couriers of the heart. It is the public playground of all the fairies or imps of passion. If you come before your pupils, after dinner, your countenance gross and stupid with animal excess, do you suppose the school will not instinctively feel the sensual oppression, and know Silenus by his looks? A teacher has only partially comprehended the familiar powers of his place, who has left out the lessons of his own countenance. *There* is a perpetual picture which his pupils study as unconsciously as he exhibits it. His plans will miscarry, if he expects a genial and nourishing session, when he enters with a face blacker than the blackboard. And very often he may fail entirely to account for a season of rapid and sympathetic progress, which was really due to the bright interpretations and conciliatory overtures glancing unconsciously from his eyes, or subtly interwoven in the lines of frankness and good-will about his lips. The eye itself alone, in its regal power and port, is the born prince of a school-room. He answers a score of questions, or anticipates them, by a glance. "The human countenance," it has been said, "is the painted stage and natural robing-room of the soul. It is no single dress, but wardrobes of costumes innumerable. Our seven ages have their liveries there, of every dye and cut, from the cradle to the bier; ruddy cheeks, merry dimples, and plump stuffing for youth; line and furrow for many-thoughted age; carnation for the bridal morning, and heavenlier paleness for the new-found mother. All the legions of desires and hopes have uniforms and badges there at hand. It is the loom where the inner man weaves, on the instant, the garment of his mood, to dissolve again into current life when the hour is past. There it is that love puts on its celestial rosy red; there lovely shame blushes and mean shame looks earthy; there hatred contracts its wicked white; there jealousy picks from its own drawer its bodice of settled green; there anger clothes itself in black, and despair in the grayness of the dead; there hypocrisy plunders the rest, and takes all their dresses by turns; sorrow and penitence, too, have sackcloth there; and genius and inspiration, in immortal hours, encinctured there with the unsought halo, stand forth in the supremacy of light."

What then? Can a man look otherwise than nature made him to look? Can he reconstruct his features? Can he resolve his face into beauty by a purpose? I reply, nature made his countenance to reflect the spirit of his life. It is a common maxim that some faces, plainest by the rules of classic symmetry, are noble with moral dignity and radiant with spiritual light. The faces we love to look at, over and over again, must be the really beautiful faces, and these are the faces of lovely persons, no matter about your Juno or Apollo. Said Chrysostom, speaking of Bishop Flavian, who had gone to intercede with the Emperor for the rebellious citizens of Antioch, "The *countenance* of holy men is full of spiritual power." This kind of beauty, the only real kind, *is* producible. The soul, such as it is, will shine through. But the completeness of that transformed expression will be seen only where the long patience of self-control, and the holiest sincerity of love, and the slow triumph of unselfish principle, have wrought their interior work, molding the inner man into a nobleness that the outward shape may honestly image.

Another of these unconscious educatory forces is the voice; the most evanescent and fugitive of things, yet the most reliable as a revealer of moral secrets. The voice, I mean now, not as an articulate medium of thought—that would be its *conscious* function, and that we here expressly set aside—but the voice as a simple sound, irrespective of syllables, and by its quality and volume, by tone, modulation, wave, and cadence, disclosing a disposition in the heart. It must have occurred to us all, how brave and long-continued and sore struggles of right with wrong in the conscience, the secret conflict of heaven with hell, Ormuzd with Ahriman in the bosom, may have been the needful preparation that gave one note of the voice, apparently falling as the most careless of acts, its sweet, celestial accent. I have no doubt that the unexplained reason why some persons remain strangely repulsive to us in spite of all resolute efforts to overcome the aversion, may be owing to some uncongenial quality betokened only in the tones of the voice. And it is familiar how the magic of a euphony, made musical and gracious by pity and love, wins wonderful convictions. I remember hearing a thoughtful person, of fine moral intuitions, who had been a little tormented by the eccentricities of a man of genius, say that all his annoyances vanished before the marvelously affecting pathos with which this odd visitor spoke the single word *Good-night*. We all remember the story of our philanthropic countrywoman quieting the rage of a maniac by her tones. Elizabeth Fry used to do the same thing at Newgate. What we only need to remember is, that into these unpremeditated sounds goes the moral coloring of a character compacted in the deliberate formation of years. And if we would breathe magnanimity, we must be, we must *have been*, magnanimous.

Still another of the silent but formative agencies in education is that combination of physical signs and motions which we designate in the aggregate as *manners*. Some one has said, "A beautiful form is better than a beautiful face; but a beautiful behavior is better than a beautiful form. It is the finest of the fine arts. It abolishes all considerations of magnitude, and equals the majesty of the world." A treatise that should philosophically exhibit the relative proportion of text-books and mere manners, in their effects on the whole being of a pupil, would probably offer matter for surprise and for use. It was said that an experienced observer could tell, in Parliament, of a morning, which way the ministerial wind blew, by noticing how Sir Robert Peel threw open the collar of his coat. Manners are a compound of form and spirit—spirit acted into form. The reason that the manner is so often spiritless and unmeaning is, that the person does not contain soul enough to inform and carry off the body. There is a struggle between the liberty of the heart and the resistance of the machine, resulting in awkwardness whenever the latter gets the advantage. The reason a person's manner is formal is, that his sluggish imitation of what he has seen, or else a false and selfish ambition, comes in between his nature and his action, to disturb the harmony and overbear a real grace with a vicious ornament. The young, quite as readily as the old, detect a sensible and kind and high-hearted nature, or its opposite, through this visible system of characters, but they draw their conclusion without knowing any such process, as unconsciously as the manner itself is worn. The effect takes place both on the intellectual faculties and the affections; for very fine manners are able to quicken and sharpen the play of thought, making conversation more brilliant because the conceptions are livelier. D'Aguesseau says of Fenelon, that the charm of his manner, and a certain indescribable expression, made his hearers fancy that instead of mastering the sciences he discoursed upon, he had invented them.

Manners also react upon the mind that produces them, just as they themselves are reacted upon by the dress in which they appear. It used to be a saying among the old-school gentlemen and ladies, that a courtly bow could not be made without a handsome stocking and slipper. Then there is a connection more sacred still between the manners and the affections. They act magically on the springs of feeling. They teach us love and hate, indifference and zeal. They are the ever-present sculpture-gallery. The spinal cord is a telegraphic wire with a hundred ends. But whoever imagines legitimate manners can be taken up and laid aside, put on and off, for the moment, has missed their deepest law. Doubtless there are artificial manners, but only in artificial persons. A French dancing-master, a Monsieur Turveydrop, can manufacture a deportment for you, and you can wear it, but not till your mind has condescended to the Turveydrop level, and then the deportment only faithfully indicates the character again. A noble and attractive every-day bearing comes of goodness, of sincerity, of refinement. And these are bred in years, not moments. The principle that rules your life is the sure posture-master. Sir Philip Sydney was the pattern to all England of a perfect gentleman, but then he was the hero that, on the field of Zutphen, pushed away the cup of cold water from his own fevered and parching lips, and held it out to the dying soldier at his side! If lofty sentiments habitually make their home in the heart, they will beget, not perhaps a factitious and finical drawing-room etiquette, but the breeding of a genuine and more royal gentility, to which no simple, no *young* heart will refuse its homage. Children are not educated till they catch the charm that makes a gentleman or lady. A coarse and slovenly teacher, a vulgar and boorish presence, munching apples or chestnuts at recitations like a squirrel, pocketing his hands like a mummy, projecting his heels nearer the firmament than his skull, like a circus clown, and dispensing American saliva like a Member of Congress, inflicts a wrong on the school-room for which no scientific attainments are an offset. An educator that despises the resources hid in his personal carriage, deserves, on the principle of Swedenborg's retributions, *similia similibus*, or "like deserves like," to be passed through a pandemonium of Congressional bullying.

I have thus specified some of the palpable channels through which the stream of this unconscious influence flows. After all, however, there is a total impression going out from character, through the entire person, which we can not wholly comprehend under any terms, nor grasp in any analysis. We now and then meet a person who, we can not tell how, by the mere magnetism of his being, kindles our enthusiasm and liberates our faculties. History tells of persons whose presence, by virtue of a secret pureness of essence, was aromatic to the senses. I have been told by a Chippewa Indian, that the men of his own tribe and those of the Sioux, between whom there has been a deadly feud for generations, although their forms and features and dress are not at all distinguishable, yet recognize one another for enemies at the greatest distance, selecting foe from friend with the infallible precision of a savage instinct. "Each faculty," it is written, "and each fixed opinion, spaces the body to suit its own play; whence sects and parties wear their bodies for liveries, and are dry or juicy, liberal or stinted, sensual or spirited, according to the openness that their tenets put into their lungs, and their lungs into their livers and frames."

A very competent critic, Mrs. Jameson, speaks thus of the "Life and Letters of Dr. Arnold," the great educational chief of modern times: "I never read a book of the kind with a more harmonious sense of pleasure and *approbation*. Page after page, the mind which was unfolded before me seemed to be a brother's mind—the spirit, a kindred spirit. It was the improved, the elevated, the enlarged, the enriched, the every way superior reflection of my own intelligence, but it was certainly *that*. I felt it so from beginning to end. Exactly the reverse was the feeling with which I laid down the 'Life and Letters of Southey.' I was instructed, amused, interested; I profited and admired, but with the *man* Southey I had no sympathies; my mind stood off from his; the poetic intellect attracted, the material of the character repelled me. I liked the embroidery, but the texture was repugnant." And that impression is as much more practical and efficient in the school-room than elsewhere, by as much as the place is more circumscribed and simple, more subject to unity and system, the insight of the observers more unsophisticated and their age more plastic. It is the impression which is the moral resultant of all that the teacher has grown up to be—the perpetually overflowing *animus* or spirit, of the sum total of his manhood, weak or strong, sound or corrupt, candid or crafty, generous or mean, sterling or counterfeit, heathen or Christian.

Nor need it cast any suspicion on this doctrine that it implies a power acting which we can not shut up into definitions; certainly not as long as we are born out of one indefinable mystery and die into another. It is a property of man, no less than of even material things, that he carries along with him more than can be measured by his literal dimensions. Why, there is not a flower in all God's gardens but suggests more meaning to the heart than Linnæus himself could extract from its calyx by botanic manipulations. The graceful outline of mountains, the splendor of planets, the shimmer that hangs over the curved sea in a summer noon, the awfulness of midnight, are far more to us than any philosophic data can describe. The commonest objects take on attributes and exert a power not at all accounted for by their matter or visible uses. The house where I was born says something to me, and I thank Him who dwells in a house not made with hands, inhabiting eternity, for it—something which can not be interpreted by the wood, and iron, and mortar, and clay that compose the structure, nor yet by the proportions into which architecture has fashioned them. Its language is eloquent with the immaterial voice, "the unwritten poetry," and the fleeting images that cluster about those lyric names, Childhood and Home.

The Bible that your mother gave you borrows its beauty from no book-maker's art; and before you open its leaves to read, it has sent in a mystic message upon your soul. There are household hymns, divine parables, inspired prophecies, half whose value consists, not in what they literally or purposely disclose, but in what they intimate by association. Shall we hesitate to ascribe a richer measure of the same kind of influence to him who is animated by a living spirit, and to own a virtue going out from him, the unconscious revelation of his acquired and inward character?

There is one kind of education, too, which has never yet perhaps had exact justice done it under any system, which must be carried forward by this indirect and pictorial method. I mean the imagination; that genial, benignant, Divinely-given faculty. By express tuition you can do almost nothing for it, and what you do you will be likely to do wrong. But unconscious forces within you will stimulate it. And how richly it rewards such nurture! I doubt whether there is any department of even material prosperity that does not stand somehow indebted either for impulse, or courage, or adorning, to the imagination, and whether there is any kind of work that reaches its highest perfection without some of its wonders and pictures. Not a mechanic's bench, nor farmer's home, but imagination has touched it, transfigured it, blessed it with her wand.

Stillingfleet, I know, calls the imagination "a shop of shadows," but it has brightened more shops than it has shaded; and Stillingfleet is not the only preacher that has reviled the source of much of his own power. Imagination acts through association, through form and motion, through glances, through what is most human in our humanity. It is the aureola of common life and the morning light of hope. How many burdens it has eased, how many threatening calamities it disarms, how many clouds it tips with gold, how much homely drudgery it clothes in garments of splendor! Hunt's lines are true as beautiful, in their condensed significance, and suit my purpose as exactly as if they were written for it:

> "Fancy 's the wealth of wealth, the toiler's hope,
> The poor man's piecer-out, the art of nature,
> Painting her landscapes twice; the *spirit* of fact
> As matter is the body; the pure gift
> Of Heaven to poet and to child; which he
> Who retains most in manhood, being a man
> In all things fitting else, is most a man,
> Because he wants no human faculty,
> Nor loses one sweet taste of the sweet world."

Then I think of the dull, stupid scholars in every school; the poor brains that text-books torment; the sad, pitiable dunderheads, with capacity enough for action perhaps by-and-by, but dismally puzzled for the present by these mysteries of geography and fractions. What a jubilee to them is the day they find an animated and vital teacher, who teaches by all the looks, and motions, and heart-beats, and spirit of him, as well as by those dreary problems and ghastly pages. There is no grade of intellect that this highest learning of the soul does not reach, and so it is a kind of impartial gospel, uplifting glad tidings to encourage despair itself.

It helps, negatively, to the same conclusion, that no moral influence that is put forth, as by deliberate contrivance to put it forth, avails much. It seems as if to go about in cool blood to undertake an influence—to get it up and spend it, forfeited the privilege, like getting up sympathy by a conspiracy, or falling in love, with a prospectus. Who ever heard of a man becoming influential by saying: 'Go to, now, I propose to be influential?" Something about this great sympathetic force requires that it should be, in a sense, indirect and unconscious, in order that it be valid. There is a providential necessity that it be got by preliminary accretions of merit, and be distributed because it can not be helped, or rather distribute itself. We all hate, with a wholesome sort of disgust, the canting formalist, who approaches us with the unctuous advertisement that he intends to operate on us with sanctifying manners, like the pattern young man who offered, in the newspaper, to go into a family where his influence would pay his board. Nobody discerns this assumption of character sooner than boys and girls. Matters of mere technical information may be legitimately conveyed by almost any tongue, but to exercise the power of character, a character must have been earned. The title must have been won by a heroic tone, habitually high. And then its influence, molding these pliant young natures around you, will be as sure as it is silent. Nothing can keep it back. Character is a grand creation in itself. But its grandeur never remains an abstraction. In moral life, influence is the complement of being.

II. It is time, then, to pronounce, more distinctly, a fixed connection between a teacher's unconscious tuition and the foregoing discipline of his life. What he is to impart, at least by this delicate and sacred medium, he must be. "No admittance for shams" is stamped on that sanctuary's door. Nothing can come out that has not gone in. The measure of real influence is the measure of genuine personal substance. How much patient toil, in obscurity, so much triumph in an emergency. The moral balance never lets us overdraw. If we expect our drafts to be honored in a crisis, there must have been the deposits of a punctual life. To-day's simplest dealing with a raw or refractory pupil, takes its insensible coloring from the moral climate you have all along been breathing. Celestial opportunities avail us nothing unless we have ourselves been educated up to their level. If an angel come to converse with us on the mountain top, he must find our tent already pitched in that upper air. Each day recites a lesson, for which all preceding days were a preparation. Our real rank is determined, not by lucky answers, or some brilliant impromptu, but by the uniform diligence. For the exhibition-days of Providence there is no preconcerted colloquy—no hasty retrieving of a wasted term by a stealthy study on the eve of the examination. Bonnivard, Huss, Wyclyffe, Alfred, Cromwell, Washington, Madame Roland, Sir John Franklin, these valiant souls were not inoculated for their apostleship *extempore*. The roots of all their towering greatness, so brave to the top, ran back under the soil of years.

I have seen a sudden thunder-gust smite an elm on one of our river-meadows, tossing its branches, twisting its trunk, prying at its root till it writhed, as if wrestling with an invisible Titan, and tearing off a few light leaves to whirl in airy eddies, but yet struggling in vain to unsettle the firm and elastic lord of the green valley from its place. Did the earth give her graceful and kingly child, as the cloud came up, any special props or braces, any thicker bark, or longer root to breast the shock? All these had to be provided in the persevering nurture of spring suns and winter blasts, sap-giving summer nights and dripping autumn rains, when no eye could mark the gradual growth. The tempest did not create the vigor which it tried and proved, and left erect as ever.

Test these general positions, in their practical bearing, on your employments, as before, by a familiar example. It is in the experience of most teachers, I presume, that on certain days, from first to last, as if through some subtile and untraceable malignity in the air, the school-room seems to have fallen under the control of a secret fiend of disorder. There is nothing apparent to account for this epidemic perversity. All the ordinary rules of the place are in full recognition. The exercises tramp on in the accustomed succession. The parties are arranged as usual. There are the pupils, coming from their several breakfasts, bringing both their identity and their individuality; no apostasy nor special accession of depravity, over night, has revolutionized their natures; no conspiracy out of doors has banded them into a league of rebellion. Yet the demoniacal possession of irritability has somehow crept into the room and taken unconditional lease of the premises. You would think it was there before the first visible arrival. The ordinary laws of unity have been suddenly bewitched. The whole school is one organized obstruction. The scholars are half-unconscious incarnations of disintegration and contra-position—inverted divisors engaged in universal self-multiplication!

How is such a state of things to be met? Not, I think, you will agree, by direct issue; not *point blanc*. You may tighten your discipline, but that will not bind the volatile essence of confusion. You may ply the usual energies of your administration, but the resistance is abnormal. You may flog, but every blow uncovers the needle-points of fresh stings. You may protest and supplicate, scold and argue, inveigh and insist, the demon is not exorcised, nor even hit, but is only distributed through fifty fretting and fidgeting forms. You will encounter the mischief successfully, when you encounter it indirectly. What is wanted, is not a stricter sovereignty, but a new spirit. The enemy is not to be confronted, but diverted. That audible rustle through the room comes of a moral snarl, and no harder study, no closer physical confinement, no intellectual dexterity will disentangle it. Half your purpose is defeated if the scholars even find out that you are worried. The angel of peace must descend so softly that his coming shall not be known, save as the benediction of his presence spreads order, like a smile of light, through the place. If a sudden skillful change of the ordinary arrangements and exercises of the day takes the scholars, as it were, off their feet; if an unexpected narrative, or fresh lecture on an unfamiliar theme, kept ready for such an emergency, is sprung upon their good-will; if a sudden resolving of the whole body into a volunteer corps of huntsmen, on the search of some etymological research, the genealogy of a custom, or the pedigree of an epithet surprises them into involuntary interest; or, in a younger company, if music is made the Orphean minister of taming savage dispositions again, then your oblique and unconscious tuition has wrought the very charm that was wanted; the room is ventilated of its restless contagion, and the Furies are fled.

Or if, as is more than probable, the disorder was in the teacher himself; if the petulance of the school all took its origin in the disobedience of some morbid mood in the master's own mind or body, and only ran over, by sympathetic transmission, upon the benches, so that he saw it first in its reflection there, of what use to assail the insubordination by a second charge out of the same temper? His only remedy is to fall back on the settled spiritual laws of his being. He must try to escape out of the special disturbance into the general harmony. He must retreat, in this emergency of temptation, into those resources of character, principle, affection, provided by the previous and normal discipline of his soul. This he will achieve by some such process as that just now specified, displacing the ground of a direct and annoying conflict by new scenery, and, rather leaping up out of the battle, with foes so mean, than staying to fight it out on their level.

On the other hand, you sometimes find yourself taken up into those lofty moods where you feel gifted with an unwonted competency. You are equal to all encounters then. Your spiritual atmosphere is bracing and elastic. Every opportunity offers itself, like an instrument, right end first. The school, the study, the workshop seems to have been waiting for you to arrive. Every yesterday was like the Jewish preparation-day for a Sabbath. All things are possible. The school-room that day, and all the planet, is under your feet. The recitations take the pitch of your own will; your sentences of explanation come out round and clear, like golden drops. Your steps are the march of a conqueror. Impediments are annihilated. Order is spontaneous. These elevated and depressed moods serve as high and low water-marks to show the sweep of the tidal vibration. But neither the one nor the other is produced by a direct volition. They come by indirection. The springs that produce the ebb and flow lie back of all proximate causes, among the more comprehensive laws of character. And when your state is most free and effective, you feel that the best effect, after all, is not so much exerted by intention as by some involuntary spirit of felicity possessing you. Your success is due, not to specific undertakings at the moment, so much as to an unconscious influence, acting through your person as its organ, a motive to itself. The same thing is revealed to us, if we fix our attention on that common word, good-nature. Good-nature is one of a school-teacher's benignant forces. And it is a force at once unconsciously exerted, and slowly acquired or kept; a reservoir, and not a spout, nor an April shower.

Something analogous takes place in the purely intellectual part of our nature. And this is best illustrated by those acts of the mind which are creative or inventive A subject that you labor painfully to unfold at one time, at another time unfolds itself. That happens, I dare say, to you, which is common enough with writers of sermons; after special elaborate efforts to exhaust a topic, or to set distinctly forward its central idea, he may be apprized that he has only preached *about* the thought, but has not preached *it;* while, in some subsequent performance, when he was not trying, he struck the mark exactly in the eye. The thing he spent a whole discourse in trying to say without getting it said, after all, says itself in a dozen natural words. Of course, the internal relations of truth with itself have not changed, but he has changed, and has become a more simple medium, or voice, for truth to speak by.

The question is a practical question: Are these occurrences the anomalies they appear, or are they subject to a secret law? Was the final and unexpected elucidation of the theme in no way indebted to the previous exercise? Or, was the clarified mental faculty, when the nebulous conception came out into strong, sharp light, the result of no foregoing discipline, or immediate and determinable cause, affecting the health of the brain? Is it certain that the "dark days" at school are totally inexplicable phenomena, and inevitable? Or can those other days of liberty and joy never be created at will?

It is my belief, that these instances I have cited are simply extreme examples of a force which runs through all our life, the force of a funded but unreckoned influence, accumulated unconsciously, and spending itself through unconscious developments; in other words, that these special moods, whether dense or rare, which appear to come and go without our control and without law, are yet the result of causes pertaining to the regular growth of character. I believe that whenever psychology and physiology shall come to be as exactly understood as the mathematical relations of astronomy, one of these freaks of temperament may come to be as confidently predicted as an eclipse of the sun. It is an outbreak, under prepared conditions, of a moral quality inbred by foregoing habits, however mixed and obscure. In short, there is a spirit of the schoolroom; not to be waited for, like a miraculous Pentecost, but to be earned, and gained, and unfolded, like every great spiritual treasure in our life, under the steady grace of God.

III. My third and final point is, that, as the unconscious tuition emanates from the inmost spirit of the teacher's life, not by accident nor lawless caprice, but in real accordance with the antecedent growth and quality of his character, so it is the most decisive energy molding the interior life of the scholar. The whole divine economy, as respects our constitution, renders it impossible to detach the power of a man's speech from the style of his personal manhood. A handsome but heartless speaker never yet stole the secret of a sincere conviction. He may gain an unlimited admiration, but he is abridged of permanent strength. The climate of abstract and unembodied thought is a polar zone. If there is a moral ingredient in the business of education at all, then, as with all other institutions that affect society, the question is paramount, What is the quality, temper, life of the speaking man? When an aspirant for public office, of a vicious substance or no substance at all, is defeated in his ravenous and lying ambition, however correct his mere political opinions, there is a divine justice in his disappointment. And we are well persuaded, if we are good citizens, that when chicane and falsehood gain a temporary promotion, the Nemesis that can afford to wait is not outwitted. The world's ardent and lasting enthusiasms center in some great personal object. How it would mock every admiring and reverential sentiment we cherish toward the august and endeared memory of the Father of his Country, if we were told to expunge from our minds all notion of what Washington *was* as a man, erase that lofty figure from the early scenery of the nation's history, sink his personal characteristics, and think only of the written words preserved to us in Mr. Sparks' collection of his correspondence and political documents! Personal relations, friendships, sympathies, clasped hands, answering eyes, touch, symphonious heart-beats, constitute the chief charm and privilege and joy of existence. We can easily conceive of all the bare *materiel* of instruction being conveyed into a school-room through a mechanism of pipes in the wall, or maps let down by pulleys, and its discipline administered by a vailed executioner, no heart-relations being suffered to grow up between teacher and taught. Into what sort of a bleak degradation would a generation be reduced by such a machinery? Yet every teacher approaches to that metallic and unillumined regimen who lets his office degenerate into a routine; who plods through his daily task-work like the tread-wheel wood-sawing horse in the railway-station shed, with no more freshness of spirit than the beast, and no more aspiration than the circular saw he drives; who succumbs to the deadening repetition, and is a virtual slave, yoked under bondage to the outside custom of his work. All sorts of human service are more or less exposed to be paralyzed by this torpor of routine; but no intellectual profession stands in more peril of coming under the blight of it than that of the teacher, partly for the reason that the same lessons recur, and partly because of the distance of attainment separating the preceptor from the pupil. There are some lawyers who plead like parrots; some doctors who give medicine as mechanically as a trip-hammer smites iron; some preachers who preach only from the throat outward, fetching up no deep breaths from the region of the heart; some manufacturers whose mental motions are as humdrum as their own shuttles, and engineers as automatic as the valves and levers of their engines. It is a greater mischief than we think, and strikes a deeper damage into the world's honor. Going through the whole lesson of life in the homeliest prose, from spade to sermon, from kitchen to church, from making loaves to making love, from marketing to marriage, such people dwarf down the whole wondrous majesty and mystery of our being to a contemptible carving-mill, turning out so many blocks or blockheads from so much timber. But the wrong done by it is never more disastrous than when it falls on the buoyant, the impressible, the affectionate, and aspiring soul of childhood. Let every beginner, on the threshold of his vocation, earnestly pray and strive to be saved from the doom of a routine teacher!

The world is full of proofs of the power of personal attributes. In most situations—in none more than a school—what a man *is* tells for vastly more than what he *says*. Nay, he may say nothing, and there shall be an indescribable inspiration in his simple presence. Every person represents something, stands for something. At least he represents a value antecedently created in his own character. As was said of Bias, the wise Greek: Himself is the treasure that a whole life has gathered. He stands for the wealth of being that a thousand past struggles have contributed to form. It is a Romish legend, that Christ and the Virgin have appeared to certain saints and impressed sensible and indelible works on their persons. Such signs of heavenly favor are certainly stamped on the great and good whom we revere, by their secret conflicts, ended in victories. Unobserved, unuttered, unconscious, is the preparation of that power. Eight solitary and suffering years the great modern apostle of Christian missions toiled at his post before a single convert confessed the faith; did he dream of the mighty influence those obscure and patient years were building up, to react on the faith and inspire the zeal of all believing souls, thus *re-Christianizing Christendom?* So his wise and calm biographer—if I may be pardoned this reference to a living educator whose wisdom you have all seen and felt as well as heard—has often seemed to me a striking illustration of the strength that lives in simple character, apart from, beyond and above, all the literal contents of all speech and all actions. And when we ascend from human personages to the Divine, and behold the Lord of all souls, just before his crucifixion, bending to wash his disciples' feet, we have, in that visible posture of condescension, a symbolizing of the whole humility of his religion—an incarnation of his redeeming office, which, like the cross itself, no language can translate. Seneca advised one of his friends to represent to himself Cato, or Socrates, or some other sage, as a constant observer—as a formative power. Alexander's statue had no such stimulus to inflame Cæsar, as the schoolmistress of a dozen pupils has to raise ennobling resolves in their susceptible blood.

There is a touching plea in the loyal ardor with which the young are ready to look to their guides. In all men, and in women more than in men, and in children most of all, there is this natural instinct and passion for impersonating all ideal excellence in some superior being, and for living in intense devotion to a heroic presence. It is the privilege of every teacher to occupy that place, to ascend that lawful throne of homage and of love, if he will. If his pupils love him, he stands their ideal of an heroic nature. Their romantic fancy invests him with unreal graces. Long after his lessons are forgotten, he remains, in memory, a teaching power. It is his own forfeit if, by a sluggish, spiritless brain, mean manners, or a small and selfish heart, he alienates that confidence and disappoints that generous hope.

I would say to all teachers—if I may here express my sense of the unity of their office, in its true interpretation, with my own as a minister in the Church—we have been touching here the most sacred issues of our common duty. It is felt, I believe, more and more every day, by all instructors who do not insult and profane their high calling by mere frivolous or mercenary dispositions, that the saddest perplexity they have to meet is the right moral management of their charge. Would to God we might help one another in that profoundest study! On your intellectual harvest, notwithstanding the inequalities of gifts, you can rely with a comparative assurance, in return for your fidelity. But when you approach the child's conscience and spirit, you confess the fearful uncertainties that invest that mysterious and immortal nature. Need it be always so? Have we no promises from God? Is there no covenant for our children to comfort us? Is not temptation itself subject to spiritual laws, which we may hope more and more to comprehend as we descend into deeper and deeper fellowship with Him who hath put all things under his feet?

Of this at least we may be sure. The fixed and everlasting principles of character can not be put aside, nor bribed, nor held in suspense, either to accommodate our moral indolence or to atone for our neglects. What we are daily sowing in self-discipline we shall reap in the failure or success of our work. What is in us will out, spite of all tricks and masks. Genuine souls *tell*, and no hypocrisy can mock or circumvent them. If we mean to train disciples of a Christian virtue, we must march the whole road ourselves. If we would mold the living sculpture, we must first fashion our implements out of purity, simplicity, love, and trust. We are watched, we are studied, we are searched through and through by those we undertake to lead—not in a jealous or malignant criticism, but in earnest good faith. A manhood that is manly, a womanhood that is womanly—these are not such ugly sights that young hearts should turn away from them or disown their fascination. Like produces like. Candor, magnanimity, veracity, tenderness, worship—these are no juvenile graces meant to be set on children's breasts by grown-up teachers on whose own lives their glory never gleams.

Not the most unflagging persistence, not the pains-taking that wears out sinews and nerves, and wearies hope itself; not the sharpest correction or the kindest counsel; not the most eloquent exhortations to the erring and disobedient, though they be in the tongues of men or of angels, can move mightily on your scholars' resolutions, till the nameless, unconscious, but infallible presence of a consecrated heart lifts its holy light into your eyes, hallows your temper, and breathes its pleading benediction into your tones, and authenticates your bearing with its open seal. This, my brothers and sisters, is our necessity. And because it is Heaven's command, it is our sufficient encouragement.

No system of education is complete till it concerns itself for the entire body, and all the parts of human life—a character high, erect, broad-shouldered, symmetrical, swift; not *the mind*, as I said, but *the man*. Our familiar phrase, "whole-souled," expresses the aim of learning as well as any. You want to rear men fit and ready for all spots and crises, prompt and busy in affairs, gentle among little children, self-reliant in danger, genial in company, sharp in a jury-box, tenacious at a town-meeting, unseducible in a crowd, tender at a sick-bed, not likely to jump into the first boat at a shipwreck, affectionate and respectable at home, obliging in a traveling party, shrewd and just in the market, reverent and punctual at the church, not going about, as Robert Hall said, "with an air of perpetual apology for the unpardonable presumption of being in the world," nor yet forever supplicating the world's special consideration, brave in action, patient in suffering, believing and cheerful everywhere, fervent in spirit, serving the Lord. This is the manhood that our age and country are asking of its educators—well-built and vital, manifold and harmonious, full of wisdom, full of energy, full of faith.

The researches of vegetable chemistry tell us that flowers borrow their colors, by hidden affinities, out of the separate soils they grow on, though the earthy bed gives no prophetic pledge, to the eye, of the beauty that will bloom from it. A dull, sober, quakerish clay shoots up "the splendid hues of the hypoxis," and the lupine spreads its soft azure petals over the sharp yellow sand. The fringed gentian,

> "Blue, blue as if the sky let fall
> A flower from its cerulean wall,"

smiles over the blackest mud. There are plants that suck luxuriant verdure from the arid breast of rocks. Others, on margins of the ocean, distill sweetness through roots soaked always in bitter brine; and others seem to breathe in their only nutriment from the air, turning the impalpable ether, by their marvelous alchemy, into snow-white berries or evergreen boughs. But into that more wonderful human stock, of whose nurture I speak, there enter, by influences as concealed, as mysterious, yet as conformable to the divine regularity of the causes in God's economy, not only the blended contributions of all elements in earth, and sea, and air, but the spiritual forces of a living Guide. And so the educated man is meant to be, not a subject of philosophic climates or geographic sections, but the incarnation of an illimitable humanity, with all the universe in his leaping pulses, with life eternal in the organs of his liberal and believing soul.

Teachers are the directors, under Christ, the masters of this immortal rearing. The Prussians have a wise maxim, that whatever you would have appear in a nation's life you must put into its schools. Entering into the dignity of so grand an enterprise, teachers are the ministers of every higher institution in our social state. They are friends and benefactors of the family. They are builders and strengtheners of the Republic, perpetually reinaugurating the Government. They are apostles for the Church. They are fellow-helpers to the truth of Him who is Father of all families, King over all empires, Head of the Church. If I heartily congratulate them on such possibilities and opportunities of honor, will it be deemed a presumption that I have urged them to be disinterested in that friendship, wise master-builders, faithful apostles ?

III. ON THE DEMOCRATIC TENDENCIES OF SCIENCE.

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READ BEFORE THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION.

[Before commencing the reading of his paper, the Professor remarked that it was a most interesting feature of the present meeting, that it embraced so full a representation of the various departments of education, comprising Presidents of Colleges and Universities, Professors, State Superintendents of Schools, Principals of Normal Schools, Preceptors of High Schools and Academies, and teachers of every description. The sight impressed him most agreeably, as showing the unity of the cause of education, into however many fields its laborers may be distributed, and exhibiting the ties by which all were bound together into one fraternal band. In the brief essay which he had prepared for the present occasion, his intention was to enter a plea for the colleges, yet he had never ceased to feel a deep interest in the cause of common schools. Indeed, some of his friends present knew, that the common schools were his first love; that the idea of normal schools occurred to him in early youth, and was publicly urged by him in an oration which he delivered at Yale College, on taking his Master's degree in 1816—sooner, it was believed, than it had occurred to any other person in the country; and could he have met with adequate support for carrying out his views, he would have enthusiastically devoted his life to the promotion of this grand object. He proceeded to read as follows:]

It has been but too common in our country to raise an outcry against Colleges and Universities, as being aristocratic institutions, designed chiefly for the benefit of the rich. The same charges have sometimes been brought against Science itself, as tending to produce and perpetuate invidious distinctions among men, giving to the few undue ascendency over the many. Under this idea, legislatures have thought it necessary to confine all appropriations of money for the benefit of education to the common schools, on the ground that the higher institutions of learning are not for the benefit of the people at large, but only for the wealthy and privileged classes of society. Demagogues, also, have found a fruitful theme in declaiming against colleges and universities, as institutions intended chiefly for rich men's sons, and therefore they have claimed to be the friends of the people by espousing, exclusively, the cause of the common schools, and preventing, as far as lay in their power, any of the State funds being applied to sustain the higher institutions of learning.

My object, in the present essay, is to prove that science, in its very nature, tends to promote political equality; to elevate the masses; to break down the spirit of aristocracy; and to abolish all those artificial distinctions in society which depend on differences of dress, equipage, style of living, and manners; to raise the industrial classes to a level with the professional; and to bring the country, in social rank and respectability, to a level with the city. In support of this doctrine, I shall endeavor to show that such is the whole drift and tendency of science, first, in its inventions, and secondly, in its institutions.

I. *The* INVENTIONS *of Science tend to elevate the masses, and to produce social equality.*

Such, I aver, has been the actual effect of the changes which the inventions of science have brought about in our own country within the last fifty years—a period distinctly within my own recollection. These changes have been chiefly effected in the following ways: first, by improvements in the arts of *locomotion;* secondly, by the general *diffusion of intelligence*, especially through the medium of newspapers; thirdly, by an extraordinary multiplication and cheapening of the *conveniences* and *elegancies of life.* Let us review each of these particulars separately, and then consider how far they are due to the labors of science.

We will first look at the effects of *steamboats* and *railroads* in producing social equality. My remarks will be understood to refer chiefly to what I have witnessed in Connecticut—a district to which my field of observation has been for the most part limited. Before the introduction of steamboats and railroads, there was a great distinction maintained between the professional and the industrial classes, and between men of wealth and what were called the common people, in their respective modes of traveling. Men of wealth kept their carriages with their drivers. In these their families took their rides about the town, and in these they made their journeys abroad. Meanwhile the laboring classes, such as farmers or mechanics, jogged along in plain, unornamented, rattling wagons, or rode on horseback. The gentlemen in coaches were looked up to as a superior class of people, with whom those in wagons or on horseback could not presume to claim any acquaintance, or to have any except the most formal intercourse; and those in coaches claimed the privileges of caste, and expected a deference from the other party, corresponding to the difference in their equipages, or if they spoke to them at all, considered it an act of great condescension.

Merchants, when on errands of business, generally rode in the public stages; but this mode of traveling was too expensive for the farmers and mechanics, and was little used by them. Indeed, people of these classes seldom had occasion to go so far from home as to require the accommodation of the public stages; and since they had little intercourse with the educated, and professional, and wealthy classes, in the daily relations of life at home, and still less abroad, the two classes of society recognized as the upper and lower classes, had as little intercourse with each other as though they had been separated by the odious distinctions of caste. Merchants, by frequent visits to the cities, acquired somewhat of the manners of the city, and adopted a style of building, furniture, and dress, which distinguished them from the farmers and mechanics, as much as the professional were distinguished from the industrial classes. The term "countrified" was an epithet of reproach liberally applied by the inhabitants of the cities, even of the smaller cities, to the country people, who, again, conscious of their ignorance of the forms of genteel society, and of the rusticity of their clothing, felt abashed when they came into the presence or entered the houses of the city-bred people. It was my fortune (I do not say *mis*-fortune) to be country-bred, and I well remember my visit, when a boy, to the neighboring city, mounted on a nag whose mane and tail were not trimmed after the city fashion, a pack of boys following me, throwing missiles, and hallooing "Country!"

If we now enter the saloon of a steamboat where the passengers, male and female, are assembled in great numbers, we shall probably be in the midst of people of many different situations in life, varying widely in education and fortune, some city-bred and some country-bred, representing many different professions—the learned and the industrial—mechanics, farmers, lawyers, merchants, clergymen, physicians, judges, statesmen, teachers, with the wives and daughters of each and every class. Yet the people who compose this promiscuous assemblage will differ so little in general appearance and manners, that we shall feel puzzled to assign the peculiar vocation of any, much less to determine which belong to the higher and which to the lower class in society. In fact, this anti-republican distinction is nearly obliterated in our State, and the separation is not now into the upper and lower classes, but into the virtuous and the vicious, the industrious and the indolent, the temperate and the intemperate.

If we enter a railroad car, we may again meet with people of many different vocations, but we recognize no appearance of caste. All mingle together on terms of perfect reciprocity. The intimate contact into which people of different professions are brought in the rail cars is working most salutary changes in the sentiments of different portions of society toward each other. The scholar takes his seat, unconsciously, by the farmer or the mechanic; they enter into free conversation, first upon topics of common interest, as the weather or the news of the day, but afterward on subjects appropriate to each. The scholar learns of the farmer and the farmer of the scholar, and each makes a grand discovery—the scholar, that the farmer is not half so ignorant as he had supposed, and the farmer, that the scholar is not half so proud as he thought he was. Mutual respect is the consequence, and the desire of a more extended intercourse between people of different professions is increasing, to the mutual benefit and respect of both parties. By the facility with which visits are now paid to the large cities, the people of the country resort to the cities much more than formerly. By this more enlarged intercourse with refined society, the characteristics of provincialism are fast wearing away. The countryman is no longer detected by the coarse texture or rustic fashion of his coat, or the uncouthness of his manners, or the peculiarities of his dialect and pronunciation. The refinements of taste, also, are rapidly spreading over the interior. Handsome houses, genteel furniture, and refined habits of living, have made wonderful progress in the interior of our State within a few years. There is scarcely a village in Connecticut where we may not find families living as genteelly as the better class of families lived in the city of New York fifty years ago.

Not only has there been great progress all over the country within the period of steamboats and railroads, in a taste for the embellishments of art and the refinements of civilized life, but the steamboats and railroads have themselves furnished the means of gratifying that taste. They have enriched the country by greatly enhancing the value of its productions, both mechanical and agricultural. How have they opened to this generation the exhaustless riches of the Mississippi Valley, and filled all New England with thriving manufactories!

We will next contemplate the changes which have occurred within the last fifty years in the general and rapid diffusion of intelligence among the industrial classes. Within my recollection the progress of a piece of foreign news, from the metropolis to the interior of Connecticut, was something like the following: The New York papers containing it traveled slowly in the stages, stopping over-night, until in the space of two or three days it reached Hartford. Then in the course of a week it was republished in one of the weekly papers, of which there were two, but none were issued oftener than once a week. A post-rider, on horseback, distributed this paper among the country people, several farmers in one neighborhood frequently making a single paper a joint stock concern. From two to four weeks generally elapsed before an article of news reached the heart of New England, after it was first known in New York or Boston; and a very large proportion of the inhabitants took no newspaper, and hardly received the tidings in any way, except by an indefinite rumor. Steamboats first gave an increased speed and range to newspapers, and at a later day railroads have so augmented both, that there is scarcely a village in New England where the New York morning papers are not read before night on the same day. Moreover, with the means of indulgence, the appetite for news has been wonderfully excited, so that a daily newspaper from New York or Boston, or issued in the town, has become to almost every man in New England one of the necessaries of life. The consequence is, that the country people are no longer looked down upon by the people of the large cities as "behind the times;" as knowing nothing of what is going on in the world, since a few hours only intervene between the merchant on change and the farmer at the plow, in the remotest parts of New England. The effect thus begun by steamboats, and continued by railroads, in elevating the country to an equality, in social condition, with the city, the *telegraph* has completed. In no important piece of intelligence is the country—east, west, north, or south—more than a few hours, seldom more than a few minutes, behind the metropolis. In no respect is the equality of the country and the city, produced by the inventions of science, more conspicuous than in this. In places where but thirty years ago the untamed savage or the wild beast roamed, in the remote districts of the West, the arrival of an Atlantic steamer at New York, or the results of the morning stock-board are matters of familiar conversation within two or three hours after they are first known at the Merchants' Exchange.

We will take but one example more to illustrate the great change in the social condition of all classes of the American people, which the last half century has produced, and that respects the effects of science in rendering the conveniences and elegancies of life accessible to the many instead of the few. It must be obvious to every observer, that we of the present generation feed on better fare than our fathers did, wear vastly finer and better clothing, live in far better houses, and enjoy infinitely more of the comforts and even the luxuries of life, to say nothing of the embellishments of taste (which formerly were exclusively within the reach of the rich and great), and with all this we do not labor half so hard as our fathers labored.

The facts which have been adduced are sufficient to show that *something* has, within the last half century, greatly elevated the privileges and enjoyments of the masses of our countrymen, and produced a far greater equality in the social condition of the laboring, in comparison with the wealthy classes, and vastly augmented the intelligence and respectability of the country, in comparison with the city. Now, the only question we have to examine is, has *science* done it? I do not say that science would have done it, to the same extent, except in a free country, enjoying all the blessings of a free government; but in *our* country I do say that these happy changes have been the true and legitimate results of science.

We have seen that the changes described have been the immediate results of steamboats, and railways, and the magnetic telegraph, and improvements in manufactures, by means of labor-saving machines, and the introduction of various chemical arts. But how came society in possession of steamboats, and railways, and locomotives, and telegraphs? Who have chiefly been the inventors of the labor-saving processes which have secured such cheapness to the comforts and elegancies of life, as to place them within the reach of every man of moderate fortune, whereas before, those who wore fine linen were only the rich and the noble? Who invented the steam-engine itself? Watt, a philosopher, a man of science. Who applied it to steamboats? Robert Fulton, a man thoroughly versed in the science of mechanics. Who applied it to railroads? The scientific engineers of England. Who invented the electric telegraph, by which the country is raised to an equality with the city? It was Morse, a son of Yale. Who invented the cotton-gin, by means of which, not only have the cotton planters been enriched, but every one who wears a cotton garment derives benefit from the invention, in the cheapness of the article? It was Eli Whitney, another son of Yale. Who have substituted the modern art of bleaching—the work of a day—for the slow, tedious, and expensive methods formerly practiced, and have thus cheapened clothing, and helped to reduce the price of fine fabrics, so as to bring them within the reach of everybody, and have contributed greatly to reduce the price of writing and printing paper, and thus to promote the general diffusion of knowledge by books and newspapers? This immense improvement in the art of bleaching was a present which Chemistry made to the arts. Mineralogy and Geology also have contributed their share, by laying open new beds of coal, for feeding the fires by which the steamboat and the locomotive are impelled; and Chemistry and Natural Philosophy unite their powers in investigating the laws of heat, and in contriving apparatus to render its applications most effective and economical.

Some will acknowledge that a few men of science, of a practical turn of mind, have contributed to the elevation of the masses by their useful inventions, while they can not see how men who are pursuing science in the abstract, as it is taught in our colleges and universities, are doing any thing for the general good. But if we go back one step beyond the inventors themselves, we come to the original investigators of the *principles* from which their inventions sprang. In the steam-engine we must go back of Mr. Watt to Dr. Black, the chemist, who investigated the laws of steam, without a knowledge of which it could never have been successfully employed as a mechanical force. In the telegraph, we must go back of Mr. Morse to Franklin and others, who discovered the properties and laws of electricity. If we admit that Hadley, a philosopher, presented the sailor with his quadrant, we must not forget that back of Hadley was another philosopher of the closet, who developed the optical principles upon which the quadrant depends. If it is granted that he who calculated the nautical tables, by which the mariner finds his place on the ocean, is a practical man, it must be granted also that the mathematician is a practical man, who furnished the calculator with his rules, and still more the astronomer, who determined the motions of the heavenly bodies, upon which the tables are founded, and, most of all, Newton and Laplace, who discovered and developed the great principle of gravitation, that enabled the astronomer to fix so accurately the places of the heavenly bodies. Thus science, in its very nature and in all its forms, whether cultivated by the recluse philosopher in his laboratory, or applied immediately to the wants of society, in the form of useful inventions, tends to equalize the gifts of Heaven, and to produce social equality among men.

2. *The* Institutions, *no less than the Inventions of Science, tend to elevate the masses and to produce social equality.*

It is no doubt true that some of the universities of Europe, under absolute governments, or amid powerful aristocracies, confer peculiar privileges on the sons of the nobility; but in the United States we neither know nor acknowledge any such order, and nowhere in our country are the accidents of birth and fortune less thought of than in our colleges. In what I say on this subject, I shall, indeed, have more particular reference to Yale College, where I have had full opportunity for observation for a period of more than forty years; but, no doubt, most of my remarks will be applicable alike to all our higher seminaries of learning.

In the first place, nearly all our older American colleges are charitable institutions, founded and sustained by the contributions of the pious and benevolent; and if among them there have been some men of wealth who, either during their lives or at their death, have given largely to such institutions out of their treasures, yet they have always, it is believed, been of the number of those who have least desired to promote colleges for the exclusive benefit of rich men's sons. The cause of useful knowledge, the general elevation of society, the interests of the Redeemer's kingdom—these are the motives which have generally, if not always, influenced those who have endowed colleges.

In the second place, the *terms* on which our colleges offer an education are fixed at the lowest possible rate, in order that men of small means may have the opportunity of educating their sons. At Yale College, the rate of tuition is fixed at a price much lower than is paid in academies and private seminaries of learning; and from this low rate there are numerous instances, in cases of pressing indigence, where a part or the whole price of tuition is abated. Moreover, there are funds held in reserve for the express purpose of enabling poor men's sons, of fair promise, to secure the blessings of a liberal education. It is for the same great object, namely, that the college may have the power of aiding by its funds indigent young men, that the salaries of its officers are fixed at a rate adequate only to a bare support, and often, indeed, below what is required for the support of a family on a moderate scale of respectability. If there is any one point where, at present, the colleges of New England are more especially emulous of each other, than on any other point, it is in affording the greatest encouragement to indigent young men. We have opened to such candidates so many opportunities for helping themselves, and released them from paying the college bills to such an extent, that every year examples* are afforded of students who have passed through college, and fully shared in its advantages, without any resources beyond their own earnings.

In the third place, it is not rich men's sons, as a class, that enjoy at our colleges the greatest measure of respectability, but it is the sons of farmers, mechanics, clergymen, and other men of moderate means; and, in fact, frequently among the most respected are those who, in order to pay their expenses, do every sort of work which they can obtain, such as ringing the bell, sawing wood, and taking care of the public rooms. Nor, in the distribution of college honors and distinctions, is the question ever raised whether the candidate is country-bred or city-bred; whether he is the son of a rich man or a poor man; whether his father is a high officer of state or in a menial condition. And since the sons of the industrial classes are usually brought up to greater habits of industry, and with a higher appreciation of the value of time, the students of those classes do in fact share more largely in the college honors and distinctions, and enjoy a higher degree of consideration than the sons of the rich and great. I venture to repeat, that nowhere on earth are men estimated more exactly according to their true merit, independently of all considerations of family or fortune, than at Yale College.

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* These, however, are to be considered as remarkable examples of talents united with enterprise; to be very destitute is, in most cases, a great embarrassment and affliction to the student, and sometimes seriously impairs his scholarship.

But, in fact, our colleges are not, as is supposed by some, made up of rich men's sons. Without pretending to be very accurate, I would, for a general idea, distribute the students of Yale College into the four following groups: The first quarter may consist of the sons of the decidedly rich, although this I believe to be much above their true proportion. The second quarter may be allotted to the better half of the middling class, who, although not accounted rich, are able without inconvenience to pay the expenses of their sons' education. The third quarter may be assigned to the lower half of the middling class, sons of substantial farmers and mechanics, who, nevertheless, find themselves somewhat straitened to meet the expenses of their sons at college. The fourth class may be composed of such as are decidedly indigent, who work their way through college by a severe economy united with various self-denying expedients for defraying their expenses, and, in many cases, come to the end of the race with a considerable debt upon their shoulders. Foreign universities may abound with sons of the nobility, but to represent our American colleges as institutions devoted to the rich is false in fact.

In the fourth place, if we now follow the men educated at our colleges into life, and view them on the great field of action, it will not appear that the sons of the rich are particularly prominent above the sons of the poor. I apprehend it will be found that, as a class, they make a less figure than either of the other quarters into which we supposed the whole to be distributed. If, by the aid of the triennial catalogues of our colleges, we endeavor to ascertain who among successive college classes have become most eminent, I think they will prove to be those who have come from the industrial professions, or from families who are alike removed from great wealth and excessive indigence, although there are occasionally striking exceptions in both extremes. Or if, instead of endeavoring to form this comparison by so imperfect a guide as the triennial catalogues, we look abroad upon the face of society itself, and see who are actually occupying the posts of usefulness and have attained the highest stations of eminence in church and state, we shall be convinced of two facts: First, that the men who are at this moment exercising the greatest influence in society, in the cabinet of the United States, in the halls of Congress, on the bench of justice, in the State governments, divines, physicians, lawyers, instructors of youth, are, in great proportion, such as have been trained at the higher seminaries of learning; and, secondly, that these have, in a majority of instances, ascended from the classes of society which lie below the wealthy class. What has made them what they are? What has taken them from the obscurity in which they were born, and given them such ascendency in the Republic? What but these very colleges and universities, which are denounced by demagogues and neglected by legislatures, as institutions which are designed chiefly for the benefit of the rich, while the common schools only are deemed worthy of legislative patronage, as institutions which confer their benefits on the people at large—on the *many* in contradistinction to the *few*.

Nothing, again, is more unjust to the higher seminaries of learning, than to represent them as the enemies of popular instruction. Their sons, whenever they have a voice in legislation, are almost always the most liberal promoters of popular education, and labor most assiduously in behalf of the common schools; and the colleges themselves have the highest interest in elevating the standard of popular education, for it is from the more intelligent portions of the community that they derive both their funds and their pupils.

I will only add, that I look upon all the institutions of learning—the common-school, the academy, the normal school, and the university—as acting and re-acting on each other like the grand powers of nature, and all as deserving of the highest possible aid from every enlightened government.

IV. ON IMPROVEMENTS PRACTICABLE IN AMERICAN COLLEGES.*

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THE subject of collegiate education in the United Sates is one which, for the last thirty years, has occupied a large space in the public mind. Within that period our college system, in form as it exists, has been made a subject of frequent and severe stricture; and the question has been seriously raised, whether this system is not inadequate to accomplish the ends of higher education, and even whether it is not incapable, without a radical reorganization, of being brought into harmony with any system by which these ends may be better secured. On the one hand, among the people themselves, there has sprung up a demand for something more practical, something which shall specifically fit men for the ordinary occupations of life, which shall prepare them to become at once mechanics and farmers, engineers and manufacturers, as well as to enter upon what are called the learned professions. On the other hand, that more limited class of men among us, who have pursued the study of letters or science far beyond the limit at which the multitude pause, have painfully felt, in the prosecution of their efforts for self-improvement, the want, under which our country labors, of those aids to higher acquisitions and profounder learning which they see so abundantly to exist in foreign lands. They, too, have naturally first looked to our colleges, in the hope of being able to elevate them, or some of them, to the rank of schools for men—schools embracing, within the range of their teaching, the entire circle of human knowledge, and capable of conducting the inquirer, in every department of the intellectual field, to the utmost limit which discovery or investigation has yet reached.

The practical men, again, seduced by the plausibility of their leading idea, and dazzled by the splendor of those achievements by which modern science has, under our own immediate observation, been recently urging forward, with a rapidity almost miraculous, the world's progress in all the useful arts, have declaimed loudly against the value of classical learning, and even demanded its entire exclusion from the course of collegiate instruction. Scholars, on the contrary, have complained that the attention bestowed upon these subjects is already too small; that the study of the ancient languages has a value, as a means of mental development, which nothing can adequately replace; that the space given to this study is less now than it was forty years ago; and finally, that, to the opprobrium of our system of higher education, examples of sound and thorough classical scholarship, among our graduates, are beginning to be the rarest of all phenomena.

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* A paper read before the American Association for the Advancement of Education, New York, August 31, 1855.

In the mean time our colleges, embarrassed by these opposing pressures, have yielded, sometimes in one direction and sometimes in another. Nearly all of them have greatly enlarged the circle of studies which they undertake to teach, and some of them have conceded to their students the privilege of selecting, from among the number, those which they prefer to pursue. The result has been such as is the usual fate of all compromises, and such as must invariably attend the effort to accomplish what is impossible. None of the complaining parties are satisfied. The college still fails to furnish the special and technical education which the practical man requires, and it still more lamentably fails to provide for that higher culture which is supplementary to mere intellectual training. It is evident that there has been error somewhere, either in the original and fundamental idea of the college itself, or in the more recent modifications of its plan of operations. In our general system of education, the college has either a proper and peculiar function to fulfill, or it has not. If it has, it can neither step aside from this, nor rise above it, without leaving a space which must be occupied by some institution designed to do the work it leaves undone. If it has not, then we have been in error on this subject for two hundred years.

In considering the topic which has been assigned to me, it is proper, first, to observe, that if our collegiate system is in fact materially defective, there exist certain serious obstacles in the way of any sudden and sweeping reforms. Could we agree upon the measures which ought to be adopted, we have none but a moral power to enforce their introduction. No royal or imperial decree can be resorted to, to control the operations of our colleges, or constrain their universal assent to any material innovations. Truth is, indeed, powerful, and will ultimately prevail. But truth is as slow as it is powerful, and the lessons of history admonish us that its triumphs are often long delayed. Our colleges are bodies not only independent of each other, and independent of any general controlling power, but they are also, for the most part, independent of the authority of the local legislatures of the States to which they belong. Though chartered by legislative enactments, few legislatures have reserved to themselves the right to look into or direct their operations; and, if all had done so, the power would still have been divided among more than thirty distinct State governments.

The arrangements of colleges are not even, to any great extent, in the hands of their own faculties. They are subject to the management of Boards of Governors, Overseers, or Trustees, men usually selected, no doubt, because of their presumed fitness for their stations, and because of the interest they are presumed to take in the cause of education; but whom it has, nevertheless, been found hitherto impossible to induce to devote any large amount of their attention to the institutions under their care. These are the men whom truth must reach before reforms, if they are desirable, can be made certain.

Nearly all our colleges are, furthermore, the creations of the different religious denominations which divide our people. They are regarded as important instrumentalities, through which the peculiarities of doctrine which distinguish their founders are to be maintained, propagated, or defended. It is this which has led to the great multiplication of collegiate institutions in our country, and which is daily adding to their number. It is this which has secured to them their endowments; and though we may regret to see the public munificence thus divided and scattered among many feeble institutions, instead of being concentrated in a few which it would suffice to elevate to the highest rank, yet we must not forget that, in the absence of a motive more powerful than mere devotion to the cause of education, this munificence would have been in a great measure withheld. Facts which have fallen under my immediate observation satisfy me, that this religious element, mingling itself with our system of collegiate education, is powerful enough to interpose a difficulty, almost insurmountable, in the way of all those wise and liberal projects by which it has been hoped to secure a system of perfectly free education, of the highest order, open to all at the expense of the State. I am persuaded, that if every State in the Union were to establish for itself a college, furnished with every appliance for imparting instruction, on the most liberal scale, and officered by the highest talent the country affords, providing, however, as it must, against the intrusion into such an institution of any sectarian bias, it would fail to divert, to any great extent, from existing institutions, the patronage which they now receive, and would fail to prevent the erection of new ones upon the same principle.

Again, it must be admitted that our college system, such as it is, whether good or bad, has taken a strong hold upon the confidence of the people. Though an acknowledged offshoot of a foreign system, it has struck its roots deep among us, has accommodated itself to our circumstances, and has proved itself, upon the whole, a thriving plant. If it has been made a subject of complaint, we must not fail to bear in mind that, in all questions of reform or revolution, it is the discontented few who make themselves heard, while the contented multitude live on in silence. Before any large changes can be introduced into our present system, popular opinion is to be extensively operated on, and fully satisfied of their necessity.

This system, then, must be accepted as an existing reality—a reality which we can not set aside or refuse to recognize, if we would, as a part of our general system of education. It is strong in a pecuniary sense. I suppose that no less a sum than fifteen millions of dollars—probably much more—has been already invested in it, and is interested in its preservation. It is strong in a moral sense, having enlisted in its behalf the convictions of the great majority of our citizens, in favor of its substantial value. It is peculiarly strong, in its alliance with the religious sympathies of our people. Our business, then, is not to inquire, what we would do if we had the work to begin anew, but what shall we do with the thing which we have? If, in the comprehensive scheme of general education which we desire to build up, commencing with the rudiments of knowledge and ending with its largest expansion, our colleges occupy an anomalous position; if they fail to interweave themselves with the schools below, taking the learner where they leave him, and carrying him forward in the equable development of his mental powers to the point where—at least until we are provided with institutions of a still higher character—he must be left to educate himself, we must endeavor gradually to mould them into the shape we would have them assume. And if we can not force them to extend themselves downward—as I believe we can not—so as to secure a more efficient performance of the work which we call preparatory, nor upward, so as to do that work for which we have yet made no provision at all, we must not regard these things as evidences of the defects of our college system, but as proofs that our general system itself is wanting in completeness.

The suggestions which I have to offer will be, therefore, entirely simple, plain, and practical, and will be founded on the assumption, that there is a specific function which the college ought to fulfill. This function is the systematic development and discipline of the faculties of the mind, in due proportion and in a natural order. And the first question which we have to settle, in regard to it, is, obviously *What course of instruction* is best adapted to secure this result? Now much of the discussion which has, of late years, agitated the public mind on this subject, seems to me to have originated in an entire misconception of the proper business of a college. If such discussions had, in all cases, ended, as they began, in words merely, allusion to them here might be unnecessary. But this is by no means the case. In a number of instances they have resulted in breaking up the long-established and time-honored course of collegiate instruction, and substituting in its place something new and materially different. Nor yet could this be a subject of reasonable complaint, provided that, in the novel schemes, we could find evidence of a distinct recognition of the proper function of the college. But so far is this from having been the case, that the entire argument, by which these innovations have been urged and indicated, has been founded on the tacit assumption, that the college has no such proper function. It has, for example, been maintained, with a great deal of warmth, that our colleges have, in later years, failed to keep pace with the rapid progress of human knowledge; that the subjects of study, to which they mainly confine the student, are in part obsolete and in part useless; that they take no account of the prospective pursuits of the young men whom they undertake to train, but subject all alike to the same unvarying intellectual regimen, and, in short, that they are far in arrear of the demands of an eminently utilitarian and practical age. We have, accordingly, been accustomed to hear the value of classical learning discussed, as if its only claim to attention lay in the directness with which it is capable of being turned to the pecuniary advantage of its possessor; and we have heard the usefulness of the higher branches of the mathematics brought to the same test by which we would judge of arithmetic, surveying, or the principles of machinery. How, it is demanded, will it help a man, in this stirring world, to have spent some of his best years in the perusal of Greek and Latin authors? How will it help him—even to communicate with his fellow-men—to have attained any degree of proficiency in the use of languages, in which men have long since ceased to communicate? Or, how will it contribute to his success as a lawyer, as a physician, as a merchant, or as a divine, that he is deeply versed in the mysteries of mathematical analysis, or familiar with the theory of the lunar perturbations?

All this course of argumentation rests, it will be observed, on a simple *petitio principii.* It is taken for granted that the college course ought not to embrace, and was never intended to embrace, any thing which should not be capable of a direct practical application, in the business of life. This postulate being granted, the triumphant conclusions of the objectors are at once legitimate and unavoidable. And not only so, but those who persist in advocating the perpetuation of our present system of college education, however in other matters they may be respectable for their intelligence, must, in regard to this, be admitted to be wanting in common sense.

But no such postulate can be received. The studies condemned were never selected, nor is their selection now defended, on the ground that they are to form any necessary and immediate element of those pursuits by which the learner is, in after life, to gain his daily bread. They were selected because of their pre-eminent value as instruments of mental discipline. It is unnecessary for me, on this occasion, to enter into any argument, upon a subject which has already been so often and so ably discussed, and in which I should only travel over ground which has been beaten again and again. I hold it to be time that, on this question, we should be permitted to believe, that there are certain principles, too well established to leave room for further controversy; and, for the sake of explicitness, though they may now be regarded as sufficiently elementary, I will venture to recapitulate them here.

1. Education, in its widest sense, signifies the development, discipline, and cultivation of all the powers and faculties of man, physical, mental, and moral.

2. Intellectual training, which is that which for the moment concerns us, implies the exercise of the mental powers, in a natural order, and in just proportion, upon subjects of thought.

3. The subjects which furnish the most beneficial discipline are not necessarily, nor even usually, those which are most immediately related to the ordinary pursuits of men in life.

4. Though, in the process of education, we necessarily impart knowledge, yet the best education by no means implies the largest amount of that knowledge which the world calls practical.

5. In arranging a plan of studies, designed to furnish a complete system of intellectual discipline, the question, How far the subjects selected may have an immediately practical value, is one of secondary importance. But,

6. Other things being equal—that is to say, when the choice is between subjects of similar disciplinary character—that which affords the largest amount of useful knowledge is of course to be preferred.

Assuming these principles to be true, I say then that the business of our colleges is to educate, and not to inform. And no argument, which goes to decry the freedom with which they employ mathematical or classical studies, as instruments of mental discipline, on the score that these subjects are less practical in their nature than something else might be, is valid, until it shall have been shown—a thing which has never yet been done—that this something else has an equal educational value with the studies so denounced. I am not prepared, therefore, to assent to the judiciousness of any of those proposed changes of our present plan of college education, by which the amount either of classical or of mathematical study, now exacted, shall be materially diminished. And, entertaining these opinions, I am equally unprepared to admit the propriety of abolishing the *curriculum* of study, or even of introducing parallel courses of study, if these courses are to run through any considerable portion of the time now devoted to college education.

The necessity of a curriculum is one which grows out of the nature of things. Experience has shown, that a certain amount of faithful labor, expended in due proportion, under the direction of minds already proficient, upon a suitable variety of subjects of human knowledge, properly selected, is sufficient so far to accomplish the main ends of education, that the student may be safely afterward abandoned to his own guidance. But this due proportionment, this suitable varying of subjects, can not with propriety be left to the arrangement of chance. These things must be matters of previous regulation and adjustment; and this regulation and adjustment, however they may be made, must end in the creation of a curriculum of study. Another consideration conspires to the same result. If education is to have any system, if the Degree, which is the certificate of the highest education for which our system provides, is to have any definite meaning, and is to be an evidence that he who receives it has been subjected to a mental training comparable to that of any other graduate, then there must be some standard of comparison to which all may be brought, and by which their fitness for graduation may be tested. Such a standard is found in the curriculum, either when, as in the English universities, it serves to guide the final examinations of all candidates for graduation, or when, as in most American colleges, a record is preserved of the daily performances of every student, upon each subject which it embraces, for use at the termination of the course.

A curriculum being, therefore, an evident necessity, it is next in order, to consider the principles upon which it should be constructed. These appear to be the following:

1. The curriculum should embrace the number and variety of studies properly disciplinary, and the amount of each, which is necessary to an adequately thorough intellectual training. In the

choice of these, the question, How far they are practical, is to be made entirely subordinate to the higher objects of education.

2. It should *not* embrace a greater amount than can be well and completely mastered, within the period of time over which it is spread.

3. The foregoing condition being fulfilled, it *may* embrace other studies, chosen simply because of their value as subjects of knowledge.

If, therefore, our course of collegiate study is to continue to be restricted to a definite term of years, and if the space of time allotted to it is to be no more than sufficient for the purposes of a thorough intellectual training, we are evidently driven to the necessity of denying the propriety of selecting any studies, to form a part of the course, simply on the ground that they are practical.

Let it here be observed, that I am employing the word practical, in this place, in that entirely utilitarian sense in which it has been so much used in public strictures upon the American college system. But I am by no means of the number of those who would withhold this epithet, when understood in its largest and most liberal sense, from any of the studies which we require our students to pursue, however little affinity they may seem to have to those occupations in which the same young men are to become immersed, so soon as the period of their college education is past. Nothing can possess a higher practical value, to any man, than that which makes him a man, in the fullest sense of the word; which gives him habits of clear, systematic, and independent thought; which sharpens his penetration, invigorates his powers of reasoning, teaches him to analyze, chastens and refines his taste, subdues to method his insubordinate imagination, and confers upon him the priceless gift of lucid and forcible utterance. Considered from this point of view, the studies of the college course, however abstract, barren, or profitless they may appear, to a superficial observer, possess a practical value of the very highest and most inestimable character, since their beneficial effects are spread out over the entire life, and are daily manifest in every variety of circumstances by which men are surrounded. If we compare the success in life of the few—for it is but a few after all—who have early enjoyed the advantages of the training which our colleges afford—the average eminence which they attain, in their respective professions and pursuits, the labors by which they command the attention of mankind, the variety and extent of the researches in which they engage, the boldness and success with which they push inquiry into the regions of the unknown, the controlling influence which they often exert in public affairs, and all those various modes in which a cultivated mind displays its superiority over matter and over other minds—if we compare these things with the degree to which the same things are, upon the whole, true of those who in youth have been denied similar advantages, we can not hesitate to attribute the observed results, in the main, to that early mental discipline which is furnished by these very studies, which we are so accustomed to hear denounced as wanting in practical value. Nor will it be any reply to this, to point, on the one hand, to those, for we need not go far to find them, whose college education has failed to lift them above a respectable mediocrity of standing ; nor, on the other, to those more remarkable individuals who have risen to eminence in spite of the deficiencies of their early education. If nature has made men essentially small, no education can render them great ; or if gifted youths choose to neglect their early advantages, or to idle away their subsequent lives, the consequences of their neglect, or their indolence, must rest upon them. To use again the names of such men as Franklin, and Watt, and Hugh Miller, as arguments to depreciate the value of collegiate education, is no more to the purpose than it would be to declaim against common schools, because some persons have taught themselves to read. The true form in which to place the argument is this : If these men have done so much without education, what might they not have done with it!

The question then arises, How far it is true that the curriculum of study, in our American colleges, is consistent with the principles according to which I have ventured to assert, it should be formed. I speak of our colleges in general, as if they prescribed to themselves, in all cases, the same invariable programme ; and this is so far a fact as to relieve me of the necessity of specifying any minor differences which may exist among them. It is, in the first place, true, that when we compare the list of college studies, as we find it to-day, with what it was fifty or even thirty years ago, we observe it to have been, in the mean time, very greatly extended. We do not find, however, that the additions which have been made to it are in all, or even in most cases, of that class of studies which may be properly called disciplinary. They consist, for the most part, of those branches of Physical Science, or of Natural History, which have received, in these later years, so large a degree of development. It may be added, moreover, that a much more considerable space is at present given to modern languages than was formerly allowed ; and that Civil Engineering, a purely practical science, has come in for a material share of attention. Considered in a merely educational point of view, the additions must be pronounced to be uncalled for and unnecessary. At the same time, while no one can deny the great value of the knowledge which they embrace, we can not regard the proposition, to discard them entirely, with unqualified favor. They happen, moreover, to be the subjects most favorite with those, among the people, who complain most loudly of the existing course of study; and were we to abolish them, we should excite a still more emphatic expression of disapprobation.

But it is to be observed that, while so large additions have been made to the amount of labor to be performed, there has been no corresponding increase of the time allotted to the work; and the question will unavoidably arise, Is it possible that all this time can have been usefully employed half a century ago, if at present we find it sufficient to enable us to accomplish so much more? And if it was so then, do we not deceive ourselves, when we imagine, that we do in fact accomplish what we propose to ourselves now; and have we not barely increased the surface over which we skim, without any longer penetrating to an equal depth? If this is true, and that it is so, we have the publicly expressed convictions of many of our most eminent educators, is it not a matter of self-evident and urgent necessity, that the existing state of things should be in some manner modified, without further delay?

It must be observed, that the modern additions, to the course of study, are mainly valuable, as they contribute to the amount of the student's knowledge, and not especially so, as a means of mental discipline. If the course is to be reduced, and if in this reduction these studies are to be retained to the present extent, or if, as is sometimes demanded, they are to be even more widely expanded, the consequence will be, that the properly educational feature of the system will disappear, and we shall convert our colleges into institutions for pure instruction. This will be to abrogate our system of higher education altogether. If, again, we effect the reduction by throwing out these subjects, to which popular opinion has attached so high and, it must be admitted, so just a value, then we must deny, to the generality of our youth, the only opportunity which seems at present to be open to them, to acquire a species of knowledge, which appears to have become indispensable to every well-informed man. The subject appears thus to be beset with difficulties upon every side.

Two expedients appear to present themselves, through which to obtain relief. In the first place, we may lengthen the period allotted to college education, extending the course of study over a larger number of years, definite or indefinite. Under this arrangement, the later years may be devoted more particularly to providing the furniture of the mind, while the earlier may be mainly devoted to the development and discipline of its faculties. That we shall meet with objection, on the score of the increased expense which will thus attend the education of a youth, is a thing to be naturally expected; yet I do not see, that this objection is entitled to any very serious consideration, when weighed against the absolute impossibility of furnishing at all the education demanded, upon any more favorable conditions. Of the many subjects which we now undertake to teach, it is notorious that not a few are taught more in pretense than in fact. And I believe it to be true, beyond contradiction, that, in order to do even so much, we have greatly detracted from the thoroughness with which the absolutely indispensable disciplinary studies, the Latin and the Greek, Geometry and its applications, Rhetoric, Logic, and Metaphysics, were once taught, in the same institutions. If the impatient public were to demand, that we should reduce our course to three years, because it would be cheaper to the patrons of colleges, that would afford us no justification for attempting to comply with the demand. It is our business, not to try to control, but rather to conform ourselves to the laws which regulate the human mind; and we can no more crowd a definite amount of instruction into a space too small to hold it, than we can force a quart of matter into a pint cup.

But secondly, we may endeavor by degrees—for a change of this kind must be gradual—to increase the exactions required for admission into the lowest class, until, after a time, we shall have forced the preparatory schools to do the entire amount of work now accomplished in the first, or perhaps the first and second years. This suggestion may possibly find more immediate favor than the preceding, and, in point of fact, it has long been a fixed policy, in some of our colleges, to pursue a course tending in this very direction. The progress thus far made has, however, been slow—slower than the exigencies of the case require, and slower than even the most cautious prudence demands. A certain timidity has seemed to control the better judgments of those who feel most sensibly the necessity of some sort of relief from present embarrassments, growing possibly out of the apprehension—which is doubtless to some degree well founded—that, unless the movement should be simultaneous and general, it would result in loss of patronage to the institution which should take too decidedly the lead. This danger might be obviated by a common understanding, entered into by the managers of different institutions, determining definitely the steps by which the desired change should be effected. It is not to be denied, however, that the expedient I here propose would be much more easily reducible to practice, in those parts of our country, in which there exist permanent preparatory schools, of a superior grade, than in those large portions of the West and South, where such schools are for the most part temporary, and are too often in the hands of instructors incompetent to the task which it is proposed to assign to them. In England, a great part of the purely disciplinary study is accomplished in such schools, as those of Eton, and Harrow, and Rugby; and were not this true, it is very questionable, how far the university system, as it has been in past years carried out at Oxford and Cambridge, could supply the defect. In Germany, the same work is done in the gymnasia, which rank, in most important particulars, as high as our colleges, and in some even higher. If we are ever in this country to have universities, approaching in plan, to those of the latter country—at least, if our colleges, or any of them, are ever to be elevated to any thing like such a rank—it can only be by ceasing, in great measure, to be what they are, schools for intellectual training; and this can only be possible when they shall, by pursuing some such course as I have suggested, have forced into existence a lower order of schools, capable of doing very much of their present work for them. Whether this will ever be, or whether it is desirable that, to the full extent of the transformation implied, it should be, are questions which I shall not undertake to answer. That a change can be carried beneficially to the extent I have proposed, I am, however, fully persuaded.

In connection with such a change, or even in fact without it, it seems to me important, that the rules which determine the age, at which youth are admissible to our colleges, should undergo revision. Most of our colleges receive candidates for admission at the early age of fourteen. In some few, the minimum age is as high as sixteen; and I am confident that it ought never to be lower. Much of the disheartening difficulty, which is incurred by the youthful student, in some parts of his collegiate course, is unquestionably to be ascribed to the immaturity of mind which he brings to its encounter. The remedy for this evil is so easy, and the evil itself has so often presented itself to many thoughtful minds, that I limit myself to this bare allusion to the subject.

[To be continued.]

V. HISTORY AND SYSTEM OF POPULAR EDUCATION IN UPPER CANADA.*

BY J. GEORGE HODGINS,

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THE political union of the Canadas, in 1840, did not include an educational union of Upper and Lower Canada. They have ever been two distinct educational provinces. Their populations have also been dissimilar in race and language, and their educational policy and success equally varied. I will, therefore, for obvious reasons, confine myself exclusively to the history of popular education in Upper Canada.

The earliest references to education, in Upper Canada, describe it as of a very inferior character, and but scantily diffused throughout the country; this was chiefly owing to the sparseness of the population and the remoteness of the new settlements. Even until within a very few years, the opening of the winter school in a settlement was a matter of great public concern, and a subject of neighborhood gossip and speculation for months before.

At a very early period in the history of the Province, and but thirteen years after the declaration of American independence, a memorial was presented to Lord Dorchester, the then Governor-General of British North America, stating the deficiency of all means of instruction, and requesting his Lordship to establish a school at some central place, such as Kingston—opposite Cape Vincent—which was then the principal town in Upper Canada.

In compliance with this request, Lord Dorchester gave directions to the Surveyors-General to set apart eligible portions of land for the endowment of schools in all the new townships.† These lands, however, remained unproductive, and before any benefit could be derived from this solicitude of the Governor-General, Canada was divided, by the Constitutional Act of 1791, into two distinct Provinces.

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* This article is the body of a paper read before the American Association for the Advancement of Education, New York, August, 1855. A few introductory paragraphs, in which the author eloquently sketches the comparative progress of Ireland, Scotland, England, Canada, and the United States in the cause of popular education, are necessarily omitted for the want of room. The paper will appear entire in the proceedings of the Association above named.

† Hawkins' Annals Colonial Church, p. 181. By a singular historical coincidence, it appears that in the same year, 1789, an Act was passed in the State of New York, setting apart two lots in each township for gospel and school purposes.

In 1796, the Imperial Government, in a letter addressed by the Duke of Portland to Lieutenant-Governor Simcoe, called his attention to the establishment of schools in various parts of the country. As a response to this appeal, the Legislature of Upper Canada, in 1797, agreed upon a memorial to that monarch, so celebrated in American history, George the Third, for a grant of land for the endowment of a Grammar School for each district, and an University for the whole Province. To the address a favorable answer was returned, and the Governor and chief civil officers were requested to draw up a report on the subject. They did so, and recommended a grant of more than half a million of acres, and the establishment of a District Grammar School in each of the four districts, into which Upper Canada was then divided, and an University at some future time.

Then was first developed, in Upper Canada, that noble policy, peculiar, I believe, to the present century, of a nation solemnly setting apart forever a portion of its rich domains, for the promotion of Christian popular education exclusively. Such an act is only surpassed by the touching solicitude of the early Legislature of Massachusetts, in setting apart the toll of a mill and the rent of a ferry, for the support of the infant University of Harvard College.

It was soon discovered, that even half a million acres of land would only barely endow one Grammar School, land being then only worth twenty cents an acre. The scheme had, therefore, to be abandoned. Meanwhile the principal inhabitants of Kingston determined upon establishing a superior Grammar School in their town, and they obtained a promise from the then Governor, to whom the establishment of a school was an event of even greater public concern than the foundation of a College would be now, that if they would provide a teacher, he would provide a suitable salary. The result was that Mr.—now the Right Reverend Bishop—Strachan was selected as the first Grammar Schoolmaster in Upper Canada. For several years, Mr. Strachan's school was the only one of any reputation in Upper Canada, and in it were educated some of those who now fill the most important places in the Province.

The first legislative enactment, relating to education, was not passed, however, until 1807, and although that act must ever be famous in Upper Canada, as perpetrating an educational anachronism, in establishing Grammar or High Schools, without making any provision whatever for the Common Schools, still it did good service, and was only superseded by a more comprehensive measure, about two years since. In that year—1807—a law was passed, establishing a Classical and Mathematical School in each of the eight districts into which Upper Canada was then divided, and granting four hundred dollars for the annual salary of the teacher. It is remarkable, that although additional grants have since been made to the Grammar Schools, the first educational grant ever made in Upper Canada—even to the very penny—is still continued to each of these schools. And although there are now upward of eighty Grammar Schools in the Province, yet it is to the original or senior County Grammar Schools alone—of which there are twenty-eight—that the special grant made in 1807 is continued. So much for maintaining public faith with old and valued servants.

In 1816—nine years after the Grammar Schools were established—our educational anachronism was removed, and legislative provision was first made for the establishment and maintenance of Common Schools in Upper Canada. The large sum, in that day, of twenty-four thousand dollars, was annually granted for this purpose, and in the most simple and primitive manner the people were authorized "to meet together" in any town, village, or township, and simply "to make arrangements for Common Schools in such town, village, or township," and secure an attendance of not less than twenty pupils. It also authorized that "three fit and discreet persons" be chosen trustees, who should "examine into the moral character and capacity of any person willing to become a teacher," and appoint him. The trustees were authorized to make rules and regulations for their own school, and select text-books, subject to a District Board of Education, to whom they were required to report. The provincial allowance to each school was in no case to exceed one hundred dollars, the balance of salary to be made up by subscription. No rate-bills or assessments were, however, authorized. This law was considered only as an experiment, and its operation was limited to four years.

Thus, in hesitation and doubt, was sown the seed of intellectual life in Upper Canada, which, though unproductive for a time, and even nearly uprooted by chilling frosts or wild popular commotions, has, by renewed care and culture, developed itself in her three thousand schools, and her half a million of self-imposed taxation for the maintenance of these schools.

At the expiration of four years, it was obvious that the law of 1816 did not produce satisfactory results, or men of narrower minds controlled our public affairs, for, in 1820, another act was passed, reducing the legislative grant from twenty-four thousand dollars to ten thousand dollars per annum, and the teacher's allowance from one hundred dollars to fifty dollars. And although, in 1819, provision was made for an additional Grammar School, and for educating ten pupils of the Common Schools, free of charge, at each of the nine Grammar Schools already established, yet the provincial allowance to teachers of Grammar Schools was also reduced to two hundred dollars, unless their pupils exceeded ten in number.

Thus ebbed and flowed, without a master hand to stay the current, that tide which, in other lands, is regarded as the nation's life-blood; and thus was permitted to ensue that state of living death, by which Upper Canada, in the significant and popular metaphor of the day, was likened to a "girdled tree," destitute alike of life, of beauty, and of stately growth.

In 1822, Sir Peregrine Maitland, the Governor, obtained permission from England to establish a Board of Education, for the general superintendence of the Grammar Schools, and for the management of the University and School lands throughout the Province. This Board prepared some general regulations in regard to the schools, and proposed a plan by which to exchange some of the school lands for the more productive Clergy Reserve Lands. The plan, having been approved by the Home Government, was carried into effect under the direction of Sir Peregrine Maitland.

In 1824, the first attempts toward providing the public with general reading books, in connection with the Common and Sunday Schools, were made. The sum of six hundred dollars was annually appropriated for this object, and authorized to be expended in the purchase of "books and tracts, designed to afford moral and religious instruction." These books were equally divided among all the districts of the Province. Thus were presented the dim outlines of a system of public instruction, which, it was clear, the necessities of the country required, but which, for want of a vigorous and systematic supervisor, were gradually permitted to fade away, without leaving an impress behind, while the legislative enactments themselves were suffered to become obsolete and to be disregarded.

In these fitful efforts may be traced the noble instincts of the Province, to possess herself of an invaluable palladium of civil and religious freedom, and which the apathy or selfishness of her sons alone prevented her from acquiring. We honor her even in her failures, while we learn a valuable lesson from her history—that to intrust the cause of education to the chances of political strife, or to the guidance of self-interested or aimless counsels, is to doom it to shipwreck and destruction.

In 1836 another spasmodic effort was made to revive the dying spirit of education in the Province, and a Commission was appointed by the Legislature to inquire into the systems of public instruction, in operation in other countries, and to report the result. Dr. Charles Duncombe, the gentleman deputed to perform this labor, visited various States of the Union, and embodied the result of his investigations in the form of an elaborate report, accompanied with an ample corroborative appendix and a voluminous bill, drafted with great care.

As a matter of history and curiosity, it may be interesting to give one or two extracts from Dr. Duncombe's Report, in which he expresses his opinion of the American systems of public instruction in 1836. Dr. Duncombe was an active, intelligent man, and from his personal history must be considered an impartial witness in regard to American institutions. He says—page 11 :

> In the United States, where they devote much time and expense to the promotion of literature, they are equally destitute of a system of national education with ourselves. And although, by their greater exertion to impart the improvements made in Great Britain, and on the Continent, and their numerous attempts at systematizing these modern modes of education, so as to lay the foundation for a future perfect system of education, adapted to the institutions of the country, they have placed themselves in advance of us, in their Common School system, yet, after all, their schools seemed to me to be good schools upon bad or imperfect systems. They seem groping in the dark; no instruction in the past to guide the future, no beacon light, no counsel of wise men to guide them, more than we have, upon the subject of Common Schools.

In another place he adds :

> The United States have, according to their public documents, about eighty thousand Common School teachers, but very few of whom have made any preparation for their duties; the most of them accidentally assume their office as a temporary employment.

That our own system of public instruction was equally inefficient was fully admitted ; and Dr. Duncombe has recorded the historical fact, in the preamble to the bill which he proposed for the adoption of the Legislature.

The labors, however, of Dr. Duncombe were productive of no immediate results. The eventful crisis of 1837, by which our political horizon was overcast and we were plunged into civil war, prevented the consummation of the hopes which had been anxiously entertained for the resuscitation of our Common School system.

In 1839, the clouds of war and tumult had passed away, and two years after, in happier times and under better auspices, the Legislature passed an act definitely establishing a system of popular education in Upper Canada, and endowed it with ample funds.

Thus was reached the great turning-point in our somewhat checkered educational history ; and although the effort was long and painful, the point, once gained, has never been abandoned. No more hesitation, no more uncertainty has marked our course; and with a true appreciation of the great future before us, and our responsibility and dignity as a people, it is to be hoped that we shall never again neglect an interest so vital, and so important to our very existence, as an intelligent community.

From 1841 to 1844, little was done but simply to discover our original foundations, and to trace out, with more or less distinctness, the former proportions and outlines of the system.

In 1844, his Excellency the Governor-General appointed the Rev. Dr. Ryerson, the present Head of the Department, a Canadian himself, and fully conversant with the wants and capabilities of his native country; he combined rare administrative abilities with extraordinary energy and intellectual vigor. Ardently devoted to the advancement of the Province, he speedily set himself to reconstruct, upon a broader and more lasting foundation, our entire system of public instruction. As a preliminary step, he devoted a year to the examination and comparison of the systems of education in Europe and America, and embodied the results in a "Report on a System of Public Elementary Instruction in Upper Canada." This valuable and comprehensive Report sketches with a bold and masterly hand the whole system of public instruction now in successful operation among us—one which is invariably referred to with pride and satisfaction by our own people, and with admiration and delight by strangers.

We now turn to the present state of education in Upper Canada. The chief outlines of the system are identical with those in other countries, but in its adaptation to the wants of the country and the genius of the people, it is essentially Canadian.

It comprises the three chief classes of public educational institutions—the Common School, the Grammar School, and the University proper—the two former being under the immediate control of the Department, the latter being distinct and independent.

We are indebted, in a great degree, to New York for the machinery of our schools; to Massachusetts for the principle upon which they are supported; to Ireland for the best series of common school books extant; and to Germany for our system of Normal School training. All, however, are so blended and modified, to suit the circumstances of the country, that they are no longer exotics, but "racy of the soil."

The municipal institutions of the country being more completely developed than any other in the world, the local machinery of our Common School system forms an admirable counterpart to them, in its fullness of outline and detail.

Each city, town, township, and village has its own municipal council; while each city, town, village, and school section has equally its own independent school organization; each possessed of extensive corporate powers. One is supreme in civic affairs, while the other is not less so in all matters pertaining to the schools. The one accepts, on behalf of the whole people, the Legislative School Grant, and imposes an assessment, equivalent to the amount granted, while the other imposes any additional assessment required, and controls the entire expenditure of the school moneys, establishes libraries, and promotes the general interests of the schools.

In Upper Canada, we have forty-two counties, five cities, twenty-two towns, sixteen villages, and four hundred townships, or about five hundred municipalities. We have also the same number of city, town, and village school corporations, together with three thousand three hundred school corporations in the rural school sections, and seventy Grammar School Boards. The schools are inspected at least twice a year by Local Superintendents, appointed by the county councils; or, in the cities, towns, and villages, by the boards of trustees. The Inspectors of Grammar Schools are appointed by a central provincial authority. Each Local Superintendent is required to deliver a school lecture at least once a year, in addition to his other duties.

Besides, in addition to the judges, magistrates, and other persons specially named, each clergyman or minister, of the different religious persuasions in the country, is officially authorized to visit the schools, and aid with his counsel and advice in promoting the great objects of education.

In each county there is also a Board of Public Instruction, for the examination and licensing of teachers, composed of Local Superintendents and of the Trustees of county Grammar Schools.

As a central authority, we have at the head of the whole system a Council of Public Instruction and a Chief Superintendent of Schools —both appointed by the Crown. The Council has the entire control of the Normal and Model School—an institution established in Toronto, in 1847, for the education and training of Common School teachers. The Council also prescribes the text-books for the schools, the reading books for the public school libraries, and the Rules and Regulations for the government of the Common and Grammar Schools, the examination of Common School teachers, and for the management of the public school libraries.

The Chief Superintendent of Schools, as his name indicates, is the chief executive officer appointed to administer the public school system. He is *ex officio* a member of the Council of Public Instruction, has the general superintendence of the Normal School, and prepares all the general regulations and reports relating to the schools, etc.

Such are the distinctive features of our system of Public Instruction in Upper Canada. In two or three particulars it differs essentially from any system in the United States; it may therefore be proper to refer to these peculiarities in detail.

1. Its Chief Executive is a non-political and permanent officer.

The success and efficiency of the system is never systematically risked at the polls or ballot box, "where sound judgment and thoughtful counsels do not always preside; although the greatest care is taken to administer the system in accordance with the well-understood wishes of the people." In fact, with the truest appreciation of the great and fundamental objects of a system of Christian and national education, designed to affect every grade of society alike, the Legislature have never yet permitted it to degenerate into a symbol of strife, or to be the subject of partisan warfare. So noble an instinct is worthy of a truly great people, and should be permanently recorded to their honor.

The principles upon which our system is founded having been more than once affirmed and sustained by the electors of the Province, it has not been considered sound policy, to subject so vital an interest and so sacred a cause to the caprice of the ever-varying current of political strife, unless its very existence were imperiled by rude and unpatriotic hands. Besides, all history has shown that no great public concern, involving the highest destiny of a nation, and beset with difficulties requiring patient and delicate treatment, can ever be brought to a successful issue, where the master mind directing it is liable to change at every adverse breath of public opinion. The renowned Michael Angelo alone perfected the colossal proportions of St. Peter's, and the genius of Sir Christopher Wren alone sketched the noble structure of St. Paul's. Even in the political history of the United States, the great principle here stated receives a striking illustration. The founders of the federal constitution, knowing that the spirit of their own heroic times could not always remain, to guard their national liberties, chose out their wisest master builders; and when the edifice was reared, they enacted that their own impress should remain upon it forever, or be changed only by the two-thirds vote of a mighty nation. It is true that the permanent efficiency of our educational system is not held to be of so much importance, as is the preservation of our political liberties; but how little is it practically considered, that to that efficiency alone, aided by the influence of the Gospel, are we indebted, under Providence, for the very existence of the civil and religious freedom which we enjoy!

As a people, we have held that, after certain great principles have been once settled, it is but sound national policy to intrust to some enlightened and responsible person, within certain restrictions, the important duty of perfecting and keeping in continuous and active operation a system of public instruction. These systems are not built up in a day, any more than was the "Eternal City" on the seven hills. And the history of our present educational structure confirms this truth; for with all the continuous aid which the Legislature has been able to give, and the public to receive and appropriate, it has taken ten years, under one guiding hand, to bring our system of public instruction through the first stage of its existence.

The system is now young and vigorous, and endowed with capabilities and resources which are rarely combined in any other state-system of education; but had we adopted the course pursued elsewhere, we feel that we should have been dooming ourselves to continued educational infancy; and our schools would have been the subject of endless experiment and theory, without the guidance of that settled and permanent policy which alone can develop and mature a great and noble system.

2. Our next essential difference arises from the entire voluntary character of our system of public instruction. Not a penny of tax is imposed by the state for the support of the schools, nor is the law compulsory upon a single municipality of the Province. It simply offers public aid on condition that an equal amount be raised from local sources, and that the conditions annexed to the grant be complied with. Thus every county of the Province is left to exercise its own discretion, as to whether it will accept the terms offered by the Legislature, or not. With a singular unanimity, every county of the Province has accepted those terms, and but two minor municipalities have declined them; still, no penalty attaches to such a step, except the loss of the grant, which would otherwise be received. The question, then, of free schools, or of no schools, is left, where it properly belongs, to the patriotism and good sense of the people themselves. They then feel that the entire responsibility of the question rests with them, and they have the sole authority to decide it. Thus their self-respect and dignity is preserved, while the result has been most gratifying to every true friend of local self-government and popular enlightenment.

3. Our third essential difference will be found in the following extract from our school law: "And be it enacted, that no foreign

books in the English branches of education shall be used in any Model or Common School, without the express permission of the Council of Public Instruction." This effectually relieves our system of that greatest of all hindrances to its efficiency, which arises from the use of an endless variety of text-books in the schools, and which renders any uniform standard of classification impossible.

It is certain that on no light grounds should such power be reserved to the state; but, like some of those invaluable safeguards, which must be thrown around even the most equitable and evenly balanced systems of government, it was found to be absolutely necessary to impose this salutary restriction on the eccentric tastes, or mere caprice, which governed parties in the selection of text-books. Besides, although it was admitted, that isolated text-books might be found, possessed of many excellencies, still, even such books, constructed as they were without any connection or uniformity of design, were felt to be serious hindrances, rather than helps, in the process of instruction, as the intermediate steps, or links of a complete series, were entirely wanting, or but imperfectly supplied. The question was therefore reduced to the simple one, Whether we should have an uniform series of books, constructed with a view to unity of purpose, and leading, in complete and easy steps, from the mere elements of knowledge to the higher branches of learning, or whether we should be condemned to gather instruction from a confused variety of doubtful books, in each of which the same ground might have to be gone over again, and all compiled without a plan, or without the slightest connection, the one with the other? The wiser course was therefore adopted, and an uniform series of text-books, based upon an intelligent system of classification, was adopted and recommended for general use in the schools. Not a single book in use was proscribed; but by providing a better and cheaper description of text-books, the old ones gradually disappeared from the schools, and were replaced by those recommended. The result has justified what was at first felt to be a delicate experiment, though, after all, an imperative necessity; and the Irish national series of text-books is now universally used, throughout the Province, at a cost far below what had hitherto been paid for a heterogeneous variety of inferior books, incapable alike of classification or of limitation in numbers, even in the same school.

4. Intimately connected with the foregoing, is the manner in which library books have been selected for the public schools. To the same central authority is intrusted the difficult and delicate duty of recommending suitable reading books for the public school libraries. The reasons for this course, although identical in some re-

spects with those which apply to the selection of text-books, are nevertheless essentially different in their character. They were chiefly to prevent the introduction, by skillful venders, or from other sources, of unsuitable, immoral, or irreligious books. The selection made by provincial authority amounts to about eight thousand volumes, and embraces works in every department of human knowledge and learning, including works on Christian Evidence and Natural Theology. From this extensive list, the local authorities are at liberty to make the freest selection; while new works of value or interest are constantly being added to the list.

5. Our fifth peculiarity relates to the facilities provided by the Educational Department for supplying the public schools with library books, and with maps, charts, diagrams, and apparatus.

Not content with merely authorizing the use of certain books and apparatus, the Department has undertaken to supply the schools of the Province directly, from its own depositories, with all these valuable requisites. To aid us in performing this duty most effectively and advantageously, the Legislature has, with most enlightened liberality, granted thirty-six thousand dollars a year, to be expended in supplying the schools with library books, maps, and apparatus, and other essential adjuncts to their efficiency and success. The principle upon which this fund is distributed is a just and liberal one. It is, that whenever a school or municipal corporation shall contribute a sum of money for the purchase of library books, etc., at the Educational Depository, the Department will also contribute an equal amount, and supply the parties applying with articles to the value of the sum thus augmented. A premium is thus held out for exertion and liberality, and each locality is aided according to its works, and not arbitrarily, whether such aid is required or not; and all are encouraged to contribute, to the utmost of their ability, to promote the efficiency of the schools.

Thus, in a deep and expanding volume, is permitted to flow freely and continuously, into every part of the Province, ample streams of knowledge and springs of intellectual life, purified alike from every poisonous influence and noxious element.

6. The principle involved in our sixth and last peculiarity is a new one, in its application, even to our own school system. It is that of pensioning the worn-out teachers of the Province.

It has long been maintained, and with justice, that the profession of teaching has been one of the most laborious, but ill-requited professions in the world; that while to it we owe our very superiority as an intelligent people, with the most heartless indifference and ingratitude we invariably spurn or neglect the hand that early supplied us with our intellectual food, and leave its possessor to pine and die in solitude and want. Upper Canada, I rejoice to say, has nobly removed this stigma upon her character. She has extended her generous sympathy and aid to a most deserving class of men—men, too, who, amid discouragements and privations doubly endured in a new country, devoted themselves to the public service, when the very existence of a public system of education itself was imperiled, or languished for want of legislative aid and recognition.*

I can scarcely leave this part of my sketch without quoting one paragraph, illustrative of the religious character of our school system, from the speech of the Earl of Elgin, in 1851, on the occasion of his laying the corner-stone of the spacious and commodious building devoted to the purpose of the Normal School and the Department of Public Instruction for Upper Canada—" the seed-plot of the system," as he graphically styles it. At the same time, I can not but refer to the enlightened devotion, ever exhibited by Lord Elgin to the cause of popular education in Canada, during the seven years in which he so ably administered the government of British North America. As an eloquent and accomplished statesman, he has stood out alone among the many distinguished men who have occupied the high position of Her Majesty's representative in Canada ; and it must ever be a source of satisfaction to himself, and of pride and pleasure to Canadians, to reflect that he alone, as a Governor-General, identified himself personally, as well as officially, throughout his whole administration, with the general education of the people of Canada. He has now retired from the scenes of his important labors, but the best wishes of Canada will ever follow him. Speaking on the occasion referred to, in reply to the Chief Superintendent of Schools, who had presented to him an address, Lord Elgin impressively remarked :

> Sir, I understand from your statements—and I come to the same conclusion from my own investigation and observation—that it is the principle of our Common School educational system, that its foundation is laid deep in the firm rock of our common Christianity. I understand, sir, that while the varying views and opinions of a mixed religious society are scrupulously respected—while every semblance of dictation is carefully avoided—it is desired, it is earnestly recommended, it is confidently expected and hoped, that every child who attends our Common Schools, shall learn there, that he is a being who has an interest in eternity as well as in time—that he has a Father, toward whom he stands in a closer, and more affecting, and more endearing relationship than to any earthly father, and that Father is in heaven; that he has a hope, far transcending every earthly hope—a hope full of immortality; that he has a

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* The average age of the seventy-five teachers already placed on this fund is sixty-five years and their average length of public service as teachers twenty-three years.

duty—the duty of striving to prove, by his life and conversation, the sincerity of his prayer, that that Father's will may be done upon earth as it is done in heaven. I understand, sir, that upon this broad and solid platform, which is raised upon that good foundation, we invite the ministers of religion, of all denominations—the *de facto* spiritual guides of the people of the country—to take their stand along with us. That, so far from hampering or impeding them in the exercise of their sacred functions, we ask, and we beg them, to take the children—the lambs of the flock, which are committed to their care—aside, and to lead them to those pastures and streams, where they will find, as they believe it, the food of life and the waters of consolation.

In conclusion, it remains for me to give a summary statement of the progress of education in Upper Canada.

As has been already intimated, the sum first granted by legislative authority for Common Schools in Upper Canada amounted to twenty-four thousand dollars. This sum was afterward reduced to ten thousand dollars per annum. In 1841, however, when the foundations of our present system were laid, the noble sum of two hundred thousand dollars was granted to carry it into effect in the entire Province—eighty thousand to Upper Canada, and a hundred and twenty thousand dollars to Lower Canada. In 1842, this sum was again divided, and eighty-four thousand dollars were allotted to Upper Canada, and one hundred and sixteen thousand to Lower Canada. By the last census, taken in 1852, it was found that Upper Canada had so far surpassed Lower Canada in population, on which the division of the grant was based, that one hundred and three thousand dollars were appropriated to Upper Canada, and ninety-seven thousand to Lower Canada. An additional grant having been since made to the entire Province, the share coming to Upper Canada amounted to one hundred and fifty-five thousand dollars, and one hundred and forty-five thousand dollars to Lower Canada.

In addition to this appropriation, about thirty thousand dollars are also granted annually for Grammar Schools in Upper Canada; total, one hundred and eighty-five thousand dollars for all the public schools, etc., in connection with the Department. Of this total sum, about one hundred thousand dollars are annually appropriated to the Common Schools; thirty-six thousand dollars for libraries, maps, and apparatus; one hundred and twenty thousand dollars for the Normal and Model Schools; thirty thousand dollars for the Grammar Schools; four thousand dollars for the support of superannuated Common School teachers; and three thousand dollars for miscellaneous purposes, including the publication of a Journal of Education, which is sent to every school officer.

Thus has the liberality of the Legislature kept pace with the growth and prosperity of the Province, and thus has the most ample provision been made for the promotion of every department of the great work of popular education in Upper Canada.

As we have hitherto referred only to what has been done by the Government and Legislature, for the promotion of popular education, we now turn to consider the corresponding exertions of the people themselves.

In 1842, after the passage of the act of 1841, we find that one thousand seven hundred and twenty-one Common Schools had been established. The number has now increased to three thousand two hundred and forty-four, or nearly one hundred per cent. in twelve years; while the Grammar Schools have increased from eight, in 1807, to eighty, in 1854; total, three thousand three hundred and twenty-four, or one public school for every three thousand inhabitants. The school population, between the ages of five and sixteen years, has increased from one hundred and forty thousand in 1842, to two hundred and eighty thousand in 1854, or one hundred per cent. The attendance of pupils, at the Common Schools, has increased from sixty-six thousand in 1842, to two hundred and four thousand in 1854, or more than three hundred per cent.; and at the Grammar Schools, from one thousand in 1847, to four thousand two hundred and eighty-seven in 1854, or more than four hundred per cent.—a most gratifying increase, certainly, and one that indicates strongly the increased anxiety of the public to avail themselves of the largely increased facilities of instruction afforded by these colleges of the people.

The greatest test, however, of the love of the Canadians for these institutions, is indicated by the amount which they contribute for their support. In 1842, the total sum raised by assessments. rate-bills, and subscriptions, independent of the Legislative Grant, amounted to eighty thousand dollars; in 1850, to two hundred and fifty thousand dollars; and, in 1854, to upward of half a million of dollars. The total expenditure, therefore, for the salaries of Common School teachers alone, in 1842, amounted to one hundred and sixty-six thousand dollars, in 1850 to three hundred and fifty thousand dollars, and, in 1854, to six hundred and seven thousand dollars. In addition to this sum, about three hundred thousand dollars were expended in 1854, in support of the colleges, grammar schools, libraries, school-houses, maps, and apparatus, being a gross sum of about a million of dollars, for primary, intermediate, and superior or collegiate institutions, or at the rate of one dollar for each inhabitant of Upper Canada. There are five colleges in Upper Canada possessed of university powers, and four which are either high schools or theological seminaries, and are without these powers.

To institute any educational comparison between Upper Canada and any of the United States, it is best to take the basis of population, as the test of comparison. The population of Upper Canada is about a million; that of Maine about one half; Massachusetts is equal to it; Pennsylvania double, and New York quadruple. The comparative attendance of pupils, in Canada, New York, and Massachusetts is about equal, but Maine and Pennsylvania are slightly in advance. A recent publication gives the following interesting comparative Table.

	The Number of Scholars to whole Population.	Proportion of Scholars to Children of School Age.
In Upper Canada	23 per cent.	76 per cent.
" Lower Canada	8 "	43 "
" The State of Maine	33 "	93 "
" The United States	20 "	66 "

The following Table shows the comparative state of education in America and Europe, and is compiled from the latest returns.

States.	One Scholar to	States.	One Scholar to
Maine	3.1 persons.	Belgium	8.3 persons.
Upper Canada,	4.4 "	France	10.5 "
Denmark	4.6 "	Lower Canada	12.5 "
United States	4.9 "	Austria	13.7 "
" (incl. slaves).	5.6 "	Holland	14.3 "
Sweden	5.6 "	Ireland	14.5 "
Saxony	6.0 "	Greece	18.0 "
Prussia	6.2 "	Russia	50.0 "
Great Britain	7.5 "	Spain	65.0 "
" act. at school.	7.0 "	Portugal	81.7 "
Norway	7.0 "		

The comparisons, in the above instances, are to the total population, and the results are sufficiently remarkable; they place Maine and Upper Canada at the head of educated states, and America before any state of Europe.

Our Library system having been only put into operation in 1853, we can only report the result of about two years' efforts of the Department, to supply the public with suitable reading books for the winter evenings. During that time, however, we have dispatched, from the Depository, at Toronto, about one hundred and ten thousand volumes, and these have gone into almost every part of Upper Canada, conveying light and intelligence into many a settler's dwelling.

Having thus but imperfectly sketched the history, state, and progress of popular education in Upper Canada, from its earliest dawn in 1789, to the close of 1854, I can only, from the past, point to the future. With all its solemn grandeur and mystery it lies before us; but who can lift the vail that shrouds it? As our experience is only comparative, and is founded alone upon the past, so our hopes and anticipations of the future alone brighten when the halo of the past is reflected upon them.

We may glance along the history of nations and survey with a thoughtful eye the mighty contests, the civil commotions, and the fearful up-heavings which have rent them asunder and have destroyed their power—forever. We can even contemplate their intellectual achievements and their unrivaled skill in the arts, but we look in vain for a parallel to our own times. Here a new spirit stands before us. As if tired of the spirit of war, the lust of conquest, or the stately pomp of courts, we see each nation putting forth all her energy and strength to uplift the masses of people to the dignity of the Christian citizen. Schools are multiplied; the abstruse sciences of the alchemists, of the days of chivalry, are unfolded even to the capacities of the child; the Bible is circulated in every land, and in every tongue, and the profoundest intellect of the day is engaged in rendering attractive the hitherto sealed book of popular instruction and enlightenment. But who, from such a stand-point, ever caught a glimpse of the distant goal before us? or who, from so brilliant a past, has ever gazed upon its corresponding future? Not one. Down the vista of history, we have seen the rise and fall of nations, the beginning and ending of wars, the failures and the perfection of art, but the end of that mighty contest of light against darkness, that great experiment of the age in which we live, we have never yet witnessed. Nor shall we. On us, as nations, and on us as individuals, devolves, however, the solemn responsibility of guiding, directing, and counseling (each in the sphere in which Providence has placed him) in the great work in which we are all engaged—fervently imploring that wisdom, and counsel, and might be imparted to the nations promoting so momentous an interest of the common weal, and that the blessing of Almighty God would abundantly rest upon the exertions of all Christian men engaged in the same noble labor of love.

VI. BENEFACTORS OF EDUCATION, LITERATURE, AND SCIENCE.

IN gathering up the material for a History of Education, Literature, and Science, in this country, we have been deeply impressed with the number and value of the donations and bequests which have already been made by individuals in different states, to build, furnish, and maintain libraries, schools, colleges, and scientific institutions. A part from the annual appropriation of a portion of the public revenues in some of the states and cities to educational purposes—mainly of an elementary popular character, and the truly munificent endowment of schools, academies, and universities, in the new States, by the donations of large tracts of the public domain for these purposes, by the General Government,* and for the right use of which posterity will hold the present generation of legislators in those States to a solemn reckoning—the great work of building up institutions for the increase and diffusion of knowledge, especially in its higher departments, has been done by individual beneficence. It is a fortunate omen

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* "It has" says Chancellor Kent, "been uniformly a part of the land system of the United States to provide for public schools. The Articles of Confederation, 1787, the acts admitting into the Union Ohio, Indiana, Illinois, Missouri, Louisiana, Florida, Arkansas, &c., all provided for the appropriation of lands in each township for the use of public schools. The elevated policy of the federal government as one of our statesmen has observed, was a noble and beautiful idea of providing wise institutions for the unborn millions of the west, of anticipating their good by a sort of parental providence, and of associating together the social and the territorial developement of the people, by incorporating these provisions with the land titles derived from the public domain."

The following Table, from DEBOW'S COMPENDIUM OF THE SEVENTH CENSUS gives the

Whole amount of Lands appropriated by the Federal Government for Educational Purposes, to 1st of January, 1854.

States and Territories.	For Schools.	For Universities.	States and Territories.	For Schools.	For Universities.
Ohio,	704,488	23,040	Iowa,	905,144	46,080
Indiana,	650,317	23,040	Wisconsin,	958,648	46,080
Illinois,	978,755	23,040	California,	6,719,324	46,080
Missouri,	1,199,139	23,040	Tennessee,	....	†3,553,824
Alabama,	902,774	23,040	Territories. Minnesota,	5,089,224	....
Mississippi,	837,584	23,040	Territories. Oregon,	12,140,907	46,080
Louisiana,	786,044	46,080	Territories. New Mexico,	7,493,120	....
Michigan,	1,067,397	46,080	Territories. Utah,	6,681,707	....
Arkansas,	886,460	46,080			
Florida,	908,503	46,080	Total acres,	48,909,535	4,060,704

† The vacant lands in Tennessee, amounting to 3,553,824 acres, were granted to the State provided $40,000 of the proceeds, if they amount to so much, be applied to establish and support a college.

of a still brighter future, that from small beginnings in the days of our poverty—from gifts of nails, glass, and timber—of a few books, a few acres of wild land, and a few pounds in money, we now hear and read of donations and bequests which are reckoned by thousands and hundreds of thousands of dollars, flowing out of the abundance of rapidly accumulated fortunes. Men of ample means begin to feel the luxury of doing good, and to see that a wise endowment for the relief of suffering, the diffusion of knowledge, the discovery of the laws of nature, the application of the principles of science to the useful arts, the conservation of good morals, and the spread of religious truth, is in the best sense of the term, a good investment—an investment productive of the greatest amount of the highest good both to the donor and his posterity, and which makes the residue of the property from which it is taken, both more secure and more valuable.

On the continued and increased liberality of men of large means, either in their associated or individual action, must we depend for the multiplication and still larger developement of our literary, scientific, and educational institutions. We cannot look to any central government, or 'patriarchal despotisms,' even if they could exist here, to promote the numerous local institutions of this character, which this age and country of large cities require. And even if we had a government fitted and disposed to establish such institutions, the evils connected with their management by officials, appointed more from considerations of party success and service, than of personal fitness, would defeat or limit the good these institutions would otherwise accomplish. Whatever the government can do, had better be done through voluntary and incorporated associations, aided by individual subscriptions and bequests, and responsible, by periodical inspection and printed reports, to the state and public opinion.

Let us then, honor in every fit way, men who appropriate a portion of their wealth to the endowment of charitable and educational foundations. By every form of publicity, let us protect their trusts from such abuses, as the recent "Inquiries of Parliamentary Commissions" have exposed in the Educational Charities of Great Britain.

In dwelling, as we propose to do, in successive numbers, on the Lives and Character of several of the most munificent benefactors of Education, Literature, and Science, and describing the growth and present condition of the Institutions which their large or well timed acts of liberality have created and endowed, we shall not lose sight of the names and services of another class of benefactors, whose contributions, although relatively small, were large in proportion to the resources from which they were drawn, and, from the time and exigences when they were made, were decisive not only of the increased usefulness, but of the very existence of the institutions. In bestowing our praises on Abbott Lawrence for the gift and bequest of $100,000 for the foundation and endowment of the Scientific School at Cambridge, we must not diminish our gratitude to John Harvard, whose early bequest of £750 converted a Grammar School of precarious prospects, into the first permanent College of America. While we express our admiration at the prospective development of the educational resources of Union College, when in the full enjoyment of the trust fund of $600,000, given by Eliphalet Nott, we shall not withhold our deepest reverence from the eleven ministers who met at Branford, in 1700, in faith and prayer, to deposit, each, some books from his own library, to found a College in Connecticut. In recording with deserved commendation the gift of $500,000, by James Smithson, to establish an Institution in Washington, for the increase, and diffusion of knowledge among men; of $400,000 by John Jacob Astor for a Library of Reference in the city of New York; of $400,000, by Peter Cooper, to erect and endow an Institute of Popular Education in the same city; of $50,000 by Joshua Bates, to the city of Boston by which the plan of a Free City Library was made secure, and broadly and immediately beneficial; of $250,000 by John Lowell, Jr., by which the Free Public Lecture was raised into an Institution; and other similar gifts and bequests; we will not forget such men as Caleb Bingham, who by the gift of one hundred and fifty volumes of books to the Town of Salisbury, in Connecticut, founded the first Youths Library in this country; such men as Josiah Holbrook, who popularized the Scientific Lecture; or James Wadsworth, of Geneseo, who by spending time and money secured the establishment of a Free Library in every one of the 11,000 School Districts of New York; or Edmund Dwight, of Boston, who by his timely donation of $10,000, induced the Legislature of Massachusetts, to provide facilities for the professional training of teachers for her common schools, and thus, inaugurated a new educational policy in our land.

VII. ABBOTT LAWRENCE.

Abbott Lawrence, the founder of the Scientific School at Cambridge, which bears his name, was born at Groton, Massachusetts, on the 16th December, 1792—the fifth son of Samuel and Susana [Parker] Lawrence.* To the endowment of a bright, active mind and sanguine happy temperament, was added only the hardy and wholesome discipline of a pious New England country household,—and the meagre attainments of a District School, with the higher advantages for a few months of an Academy in his native village, up to the age of sixteen years, when he entered Boston, "a poor lad with a bundle under his arm, and with less than three dollars in his pocket, his whole fortune," to serve his apprenticeship as clerk in the importing house of his brother Amos Lawrence. From such beginnings, and without the aid of family connection and wealth, by the steady exercise of the homely and practical virtues of integrity, industry, courage, promptitude, public spirit, philanthropy, and perseverance, he attained a commercial, political, and social eminence, not surpassed by any citizen of Boston at the time of his decease. For years even before his death—one† who is a Bostonian in every fibre of his being, with a patriotism large enough to embrace the whole country, remarked in the language of Edmund Burke, "When an act of great and signal humanity was to be done, and done with all the weight and authority that belonged to it, this community could cast its eyes on none but him."

On the 1st of January, 1814, he was taken by his brother Amos, into partnership, and together, under the firm of A. & A. Lawrence—these two brothers, entered on a career of large commercial transactions—first in the foreign, but afterward in domestic trade—and finally of great manufacturing operations, by which, while they amassed great estates for themselves, and helped to develope the resources and material prosperity of their city, state, and country—they at the same time gave beautiful exhibitions of the true uses of wealth in relieving destitution and misfortune, and in ministering to the moral and intellectual advancement of society. Their success and lives have added lustre to the mercantile profession of Boston, and their names are indissolubly connected with the growth of two great cities—Lowell and Lawrence—on sites, where the land was almost useless for ordinary agricultural purposes, to a capital invested in various forms of productive industry to the value of $20,000,000, and with an aggregate population of more than forty thousand inhabitants, with homes, churches, schools, libraries, and all other aids and appliances of intelligence, independence, comfort, and virtue, such as no two manufacturing communities in the old world can show. While engaged in the vigorous prosecution of his own business, Mr. Lawrence was prompt to consider and aid, by sharing the risk, any enterprise which promised not so much great return in dividends to those immediately interested, as public utility, in which those who are most backward to help in the start, are sure to step in to reap the private emolument in the end. Many of the great railroads and other means of internal communication in and out of New England,—of national and international importance, received his prompt and liberal support.

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* A brief notice of the family of Samuel Lawrence, will be given in a sketch of Amos Lawrence—the fourth son, in connection with a History of Williams College, and Lawrence Academy, of which institutions he was a liberal benefactor. The life of this truly good man, and noble hearted merchant, published by Gould & Lincoln, Boston, should be placed in every School Library, and be read by every young man in the country.

† Hon. Robert C. Winthrop, in an Address at a Public Meeting in Faneuil Hall, on the occasion of the death of Abbott Lawrence, on the 20th of August, 1855.

Mr. Lawrence did not seek public life, but when he accepted an official trust, he entered upon its duties with his whole heart, whether as chairman of a political meeting, or member of a working committee; in the councils of the country, or as her representative abroad. In 1831, he was elected a member of the Common Council of Boston for one term, and in 1834, and 1839, he represented Suffolk District in the National Congress. In 1842, he was appointed one of the Commissioners on the part of Massachusetts, to settle the North Eastern Boundary question, then pending between the United States and Great Britain. In 1848, he was a prominent candidate of the Whig party for nomination to the high office of Vice President of the United States; and in 1849, was tendered the choice of one of two Secretaryships in the Cabinet of President Taylor. He accepted in the same year, the appointment of Minister Plenipotentiary to the Court of St. James. To all these positions he was promoted without any solicitation on his part, by such majorities, or under such circumstances as showed the public confidence in his integrity, ability, and patriotism. In every office, while he acted out to the full circumference of his duty, and to the fullest realization of public confidence and anticipation, he at the same time used the influence of his wealth and position to minister in large measure to the social and individual happiness of his townsmen and countrymen. The credit of American skill and industry in the Great London Exhibition of

1851, was saved from public disgrace, and a large number of American inventors, mechanics, manufacturers, from sore disappointment, by the prompt and liberal advances of Mr. Lawrence, and Mr. George Peabody, another noble specimen of the American merchant.

Mr. Lawrence died in his own home in Boston, on the 18th of Aug., 1855, and was buried on the 22d, in the Rural Cemetery of Mount Auburn, that quiet and attractive Garden of Graves, which his liberality and public spirit had helped to create and adorn. His last illness, death, and burial were attended with such demonstrations of wide spread and deep-felt sorrow and respect as only a lively sense of his great private virtues, and public services could inspire, and which are seldom accorded even to one, holding the highest official station, cut down in the midst of public duties and relations. His illness with its varying aspects from day to day, was announced by telegraph and the press, as foreshadowing a great loss, not only to the mercantile profession, but to the whole country. The tidings of his death called forth resolutions of sympathy and gratitude from the many Charitable and Literary Associations of which he was a member and a benefactor;—and old Faneuil Hall, in which he had presided over many large assemblies of his fellow-citizens, was crowded on the 20th by representatives of every profession and pursuit, and every public institution of education and beneficence, to join in resolutions and addresses expressive of the common bereavement. On the 22d, when he was borne from his own home to the Brattle Square Church, of which he was a communicant, and regular worshipper,—the great men and all classes of the community—college professors and mechanics, judges and merchants, statesmen and divines, rich men and poor, flocked together to mingle their common grief over the coffin of a common friend. After solemn and appropriate religious observances, conducted by the pastor, the Rev. Dr. Lothrop, the procession moved away through the streets of the city, which he loved so well, under a military escort, and with minute guns firing.

From the many addresses and notices which his death called forth, we select a large portion of that made by the Hon. Edward Everett in Faneuil Hall, as presenting a just estimate of the public services and private virtues of Mr. Lawrence, drawn by one "who having walked side by side with him for forty years, and acted with him confidentially on many important occasions public and private, enjoyed ample opportunities to witness the great and excellent qualities which made him so respected and valued a member of the community."

"It would be an unseasonable and superfluous, though a grateful task, before this assembly,—composed of the neighbors, the associates, the fellow-citizens of our deceased friend,—to attempt minutely to relate his career or delineate his character.

You are acquainted with them from personal observation, and they have already gone forth, on the wings of the press, to the four quarters of the land. You have been accustomed to hold them up and to speak of them as a most happy specimen of the life and qualities, which, without early advantages over the rest of the community, are naturally produced by that equality of condition which prevails in New England, and by those means of common school education, and the facilities which attend a virtuous, energetic and industrious young man upon his entrance on the world. You habitually point to him, as a bright example of the highest social position, of commanding influence over others, of overflowing abundance of this world's goods, attained by the calm and steady exercise of home-bred virtues and practical qualities, by the energetic and unostentatious pursuit of an industrious career, which are the common birth-right of the country, and the greater his praise, who out of these familiar elements of prosperity was able to rear such a rare and noble fabric of success.

Mr. Lawrence, Sir, as you well know, belonged to that class of merchants, who raise commerce far above the level of the selfish pursuit of private gain. He contemplated it as a great calling of humanity, having high duties and generous aims; one of the noblest developments of our modern civilization. I know these were his views. I had a conversation with him many years ago, which I shall never forget. I was to deliver an address before one of our local associations, and I went to him and asked him what I should say to the young men. "Tell them," said he, "that commerce is not a mercenary pursuit, but an honorable calling. Tell them that the hand of God has spread out these mighty oceans, not to separate but to unite the nations of the earth; that the winds that fill the sail are the breath of Heaven; that the various climates of the earth and their different products are designed by Providence to be the foundation of a mutually beneficial intercourse between distant regions." Mr. Lawrence was justly proud of the character of a Boston merchant, and that character suffered nothing at his hands. His business life extended over two or three of those terrible convulsions, which shake the pillars of the commercial world, but they disturbed in no degree the solid foundations of his prosperity. He built upon the adamantine basis of Probity; beyond reproach, beyond suspicion. His life gave a lofty meaning to the familiar line, and you felt, in his presence, that

> "An honest man *is* the noblest work of God,"

Although in early life brought up in a limited sphere, and in the strictness of the old school, which prescribed a somewhat rigid perseverance in one track, Mr. Lawrence was not afraid of bold and novel projects; he rather liked them. He was an early and an efficient friend of the two great business conceptions—creations I may call them—of his day and generation. As much as any one man, more than most, he contributed to realize them, to the inappreciable benefit of the country. When he came forward into life, India cottons, of a coarser and flimsier texture than any thing that has ever been seen in this country by any man under thirty-five years of age, were sold in this market at retail for a quarter of a dollar a yard. Every attempt to manufacture a better article was crushed by foreign competition, acting upon imperfect machinery, want of skill incident to a novel enterprise, and the reluctance of capital to seek new and experimental investments. Mr. Lawrence felt that this was an unnatural state of things. He believed, if our infant arts could be sustained through the first difficulties, that they would assuredly prosper. He believed the American Union to be eminently calculated for a comprehensive manufacturing system. He saw, in no distant perspective, the great agricultural staple of the South enjoying the advantage of a second, and that a home market, by being brought into connection with the mechanical skill and the capital of the North. He saw the vast benefit of multiplying the pursuits of a community, and thus giving play to the infinite variety of native talent. He heard in advance the voice of a hundred streams, now running to waste over barren rocks, but destined hereafter to be brought into accord with the music of the water-wheel and the power-loom. He contemplated a home consumption at the farmer's door, for the products of his corn-field, his vegetable garden, and his dairy. These were the views which led Mr. Patrick J. Jackson, Mr. F. C. Lowell, and Mr. Nathan Appleton and their associates, to labor for the establishment of the manufactures of the United States. These surely were large and generous views. At the time when his own pursuits and interests were deeply engaged in commerce, entertaining the opinions I have so briefly indicated, he threw himself with characteristic ardor into the new pursuit, and the country is largely indebted to Mr. Lawrence for the noble result. We are now, without any diminution of our agriculture and navigation, but on the contrary with a large increase of both, the second manufacturing country in the world. The rising city which bears his name, on the beautiful banks of the Merrimack, will carry down to posterity no unworthy memorial of his participation in this auspicious work.

The other great conception, or creation, to which I had reference was the railroad system of the country. For this also the community is largely indebted to Mr. Lawrence. With respect to the first considerable work of this kind in New England, the Worcester Railroad, I cannot speak with so much confidence, but with regard to the extension of that road westward, I am able to speak from my own information. Mr. Lawrence was one of its earliest and most efficient friends. It is twenty years ago this summer since we had a most enthusiastic and successful meeting in this hall in furtherance of that great enterprise. Mr. Lawrence contributed efficiently to get up that meeting, and took a very active part in the measures proposed by it. It was my fortune to take some part in the proceedings. At the end of my speech, for which he had furnished me valuable materials and suggestions, he said to me, with that beaming smile which we all remember so well, "Mr. Everett, we shall live to see the banks of the Upper Mississippi connected with iron bands with State street." He has passed away too soon for all but his own pure fame; but he lived to see that prophecy fulfilled. I need not tell you, Mr. Chairman, that to these two causes—the manufactures and the net of railroads strewn over the country, New England is greatly indebted for her present prosperity.

There is another cause to which she owes still more, than to any thing that begins and ends in material influences; the cause of Education. Of this also, Mr. Lawrence was an efficient friend. Besides all that he did for the academies and schools of the country, in answer to applications for aid continually made, and as constantly granted in proportion to their merits, he has left that enduring monument of his enlightened liberality, the Scientific School at Cambridge. My friend and former associate in the Corporation of Harvard College (Hon. S. A. Eliot,) can vouch for the accuracy of what I say on this head. Mr. Lawrence felt that our collegiate seminaries, from the nature of those institutions, made but inadequate provision for scientific education as a preparation for the industrial career. He determined, as far as possible, to remedy the defect. He had felt himself the want of superior education, and resolved, that, as far as he was able to prevent it, the rising generation of his young countrymen should not suffer the same privation. I had the honor, at that time, to be connected with the University at Cambridge. I conferred with him on this subject from the time when it first assumed distinct shape in his mind, to that of its full development. He saw the necessity of systematic training in the principles of science, in order to meet the growing demands of the country and the age. He saw that it was a period of intense action. He wished our agriculturists, our engineers, our chemists, our architects, our miners, our machinists,—in a word all classes engaged in handling the natural elements, to lay a solid foundation on the eternal basis of science. But his views were not limited to a narrow utilitarianism. He knew the priceless worth of pure truth. He wished that his endowment should contribute to promote its discovery by original researches into the mysteries of nature, and he especially rejoiced in being able to engage for his infant establishment the services of the great naturalist* of the day. These were the objects of the scientific school,—this the manner in which he labored for their promotion. What nobler object for the appropriation of the fruit of his hardly earned affluence could be devised? For material prosperity and all the establishments by which it is augmented and secured may flee away; commerce may pass into new channels; populous cities in the lapse of ages may be destroyed; and strong governments be overturned in the convulsion of empires; but science and truth are as eternal as the Heavens, and the memory of him who has contributed to their discovery or diffusion, shall abide till the Heavens themselves have departed as a scroll.

In these and other ways, of which I have not time to speak, Mr. Lawrence rendered noble service to the community, but always as a private man. He wished to serve it in no other capacity. He resisted, as much as possible, all solicitations to enter public life. He served a little while in our municipal councils and our State Legislature, but escaped as soon as possible. He served two terms in Congress, with honor and good repute. He brought to that market articles with which it is not overstocked; sound, reliable, practical knowledge, and freedom from electioneering projects. He rendered the most important aid as one of the commissioners on behalf of Massachusetts, in the negociation of the North Eastern Boundary question. He was offered a seat in General Taylor's Cabinet, which was promptly declined; and, when the mission to London was placed at his disposal, he held it long under advisement. While he was deliberating whether to accept the place, he did me the honor to consult me, naturally supposing I could give him particular information as to the duties of the office; and, remarking that it would depend in a considerable degree on my report, whether he accepted it. Among many other questions, he asked me "whether there was any real foundation, in truth, for the ancient epigrammatic jest, that "an ambassador is a person sent to a foreign government to tell lies for his own," adding, that, if that was the case, his mind was made up; he had never yet told a lie, and was not going to begin at the age of fifty-six." I told him, "I could answer for myself as a foreign minister, that I had never said a word or written a line which, as far as my own character or that of my government was concerned, I should have been unwilling to see in the newspapers the next day;" and this explanation, he said, removed one of his scruples. I encouraged him, of course, to accept the mission; and his brilliant success is known to the country and to Europe; success equal to that of any of his predecessors, living or dead, however distinguished. His genial disposition, his affable manners, his princely hospitality, his appropriate speeches at public meetings and entertainments,—not studied harangues, not labored disquisitions,—but brief, animated, cordial appeals to the good feelings of the audience,—topics pertinent to the occasions,—the tone cheerful and radiant with good temper,—lively touches on the heart-strings of international sympathy,—these were the manly and honest wiles with which he won the English heart. His own government, (first duty of a foreign minister), was faithfully served. The government to which he was accredited was conciliated. The business confided to him, (and it is at all times immense), was ably transacted. The convenience of a host of traveling countrymen promoted. The public in England gratified. What more could be done or desired? His success, as I have said, was fully equal to that of any of his predecessors; perhaps I ought to use a stronger term.

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* Professor Louis Agassiz.

He came home, and returned to private life, the same man. He resumed his place in his happy home, in his counting-house, in the circle of friends, and wherever duty was to be performed, or good done. To the sacred domain of private life I will not follow him, except to say a word on that trait of his character to which the gentlemen who have preceded me have so feelingly alluded, I mean his beneficence; a topic never to be omitted in speaking of Mr. Lawrence. And here I will say of him, what I heard President John Quincy Adams say of another merchant prince of Boston (Col. Perkins) in the Hall of the House of Representatives that "he had the fortune of a prince, and a heart as much larger than his fortune, as that was than a beggar's." I will say of him what was said of his lamented brother, Amos, that "every day of his life was a blessing to somebody." Sir, he gave constantly, by wholesale and retail; and, as I venture to affirm without certainly knowing the fact, every day of his life. His bounty sometimes descended in copious showers, and sometimes distilled in gentle dews. He gave munificent sums publicly, where it was proper to do so, by way of setting an example to others; and, far oftener, his benefactions followed humble want to her retreat, and solaced the misery known only to God and the earthly steward of his bounty. Vast sums were given by him while he lived, which evinced, but, if I mistake not, did not exhaust, his liberality.

Such he was; so kind, so noble, so complete in all that makes a MAN, and the ultimate source of all this goodness, its vital principle, that which brought all his qualities into harmonious relation, was religious principle; the faith, the hope of the gospel. This is no theme for a place like this,—other lips and another occasion will do it justice, but this it was which gave full tone to his character, and which bore him through the last great trial. This it is which must console us under his irreparable loss, and administer comfort to those with whose sorrow the stranger intermeddleth not."

Of his many acts and bequests for educational and charitable purposes, his founding of the Scientific School at Cambridge, by the gift to Harvard College of $100,000, and his provision in his Will of $50,000, for the erection of *Comfortable Homes* for the industrious and temperate poor, are the most signal. Of the first enough has been said in general explanation,* in the remarks of Mr. Everett. Respecting the last we publish that portion of the Will, transcribed from the Probate Records of Boston, as best explaining his own object, and affording a good model for those who are disposed to go and do likewise.

Having heretofore contributed from time to time, as has seemed to me just and proper, to the various benevolent institutions and Charitable Societies of Boston, and as most of the public charities among us are now well established, and so far provided for, that their support, while properly and usefully conducted, may be safely left to a community like that of Boston, I do not now deem it necessary to make any gifts or bequests to those purposes, but prefer to direct the appropriation of that which under other circumstances I might devote to them, to another object not less important but which has not received so much of the public attention ; and as it has long appeared to me that in no way could the welfare of the poor be more promoted than by providing for them honest and industrious, comfortable, and healthy habitations, at such reasonable rents as shall be within their means, and thus affording them one of the greatest safeguards of family happiness and virtue, "*A Home*," and desiring as far as in me lies to aid in this object, hoping that should the experiments lately commenced in this behalf be successful, others may be induced to join in this promotion of so desirable a purpose. I do hereby give, devise, and bequeath to my son James Lawrence, and to my friends I. Ingersoll Bowditch and George H. Kuhn, all of said Boston, or to such of them as shall accept this trust, the sum of Fifty thousand dollars, to hold the same to them the said Lawrence, Bowditch, and Kuhn, and their assigns, the survivors of them and their assigns, and the survivor of them, his heirs, executors, administrators, and assigns, but in trust nevertheless for the uses and purposes following, namely—that the said Trustees shall as soon as conveniently may be after the payment and receipt of the said sum, expend the same in the purchase of such suitable parcel or parcels of land, as they may consider best adapted to the purpose, in the City of Boston, and in the erection thereon of Model Lodging Houses for the Poor, the same to be built and arranged for the accommodation of families, with especial reference to the comfort and health of the occupants and the proper ventilation and cleanliness of their tenements; and upon the further trust to cause and permit the said houses and tenements when so erected and completed, to be let to poor, temperate, and industrious families at such reasonable rents as to the said Trustees shall seem best ; and the nett yearly rents and income thereof, after deducting such sums as may be necessary for the payment of taxes, (in case taxes are assessed on the said property), and for repairs and insurance and such other reasonable expenses as may be incurred in the execution of the said trust including the compensation of such Clerk or Agent as they may require in the management of the said trust estate, to divide into two equal parts, one of which parts shall yearly and in each year be distributed by the said Trustees at their discretion, and in such proportions, as they shall decide, among the public charities of the City of Boston, incorporated or otherwise ; and the other half part to invest in some safe and productive manner, and the interest and income to suffer to accumulate until it shall constitute a fund of Ten thousand dollars, to be applied when needed to the rebuilding of the said tenements or lodging-houses. Provided, however, that if by reason of the destruction or injury of the said buildings by fire or any other cause, the whole or any portion of the said reserve fund shall be required in addition to such amounts as may be received upon any policies of insurances, for the rebuilding or repair of the said tenements, before the said fund shall have amounted to the said sum of ten thousand dollars, it shall be lawful for the said Trustees to apply the same or so much as may be needed to that purpose. And whenever and as often as the said fund shall by reason of such appropriation and expenditure of the whole or a part have been reduced below the said sum of ten thousand dollars, the same shall be suffered to accumulate by the addition and investment of one full half part of the said nett yearly rents and income, and the interest thereon until it shall reach that sum; but whenever the same shall amount to the said sum of ten thousand dollars, then the whole of the said nett yearly rents and income, together with the interest and income of the said fund of ten thousand dollars, (until the said fund shall be wanted for the purpose of rebuilding), shall be yearly and in each year distributed among the public charities of the City of Boston as aforesaid. Provided, however, that if after the said fund of ten thousand dollars shall have been accumulated and invested in manner aforesaid, it shall in the opinion of the said Trustees, be desirable and expedient to appropriate and expend the income of the said trust fund of ten thousand dollars and the half part of the nett yearly rents and income before that time appropriated to the formation of the said fund of ten thousand dollars to the enlarging or improving of the tenements or houses then erected, they shall have the right so to do. And in case either of the said Trustees before named shall decline, or be unable to accept the said trust, as also in case of the decease, resignation, or continued inability to act of either of the said Trustees or of any other Trustees who may be appointed in their stead as herein provided, a new Trustee or Trustees shall be appointed by the joint nomination and choice of the Actuary of the Massachusetts Hospital Life Insurance Company, the Mayor of the City of Boston, and the Judge of Probate for the County of Suffolk for the time being, and the new Trustee or Trustees thus appointed shall have and exercise the same powers as are herein granted to the Trustees herein named. The Trustees herein named shall not be required to give bond for the faithful execution of their trust, nor shall the Trustees appointed in manner aforesaid be required to give bond, unless required so to do by the said Actuary of the Massachusetts Hospital Life Insurance Company, the Mayor of the City and the said Judge of Probate, or a majority of them. In case the said Trustees, or a majority of them, shall at any time deem it advisable and for the furtherance and promotion of the objects of the trust, to sell the land and buildings held by them in trust, for the purpose of changing the location, or procuring a better situation, they shall have the right so to do, and are hereby authorized and empowered to sell and convey by good and sufficient deed or deeds, the land and estates thus held in trust. and to invest the proceeds in the purchase of other suitable land in Boston, and the erection of buildings thereon, to be held upon the same trusts and used for the same purposes.—The said Trustees shall yearly and in each year render an account of their doings and expenditures to the Mayor and Aldermen of the City of Boston.

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* For History of the Lawrence Scientific School, and the Course of Instruction established for 1855-56, see post page, 217.

This wisely guarded and munificent bequest to aid efforts which are already begun to secure comfortable Homes for the Poor, we regard as one of the wisest Charities which has been established in this generation, whether regarded in the light of an educational or humane movement.

An "Association for building Model Lodging Houses for the Poor," was organized in Boston in 1851, of which Mr. Lawrence was a member. The Association has already erected at an expense of $40,000 two houses with accommodation for forty families, on Osborne Place of Pleasant Street in a crowded quarter of the city. Of their operation for one year, the Rev. C. F. Barnard, of Warren Street Chapel—whose ministry is among the extreme poor of the city, and who has no official nor immediate personal connection with the Association, remarks:

"Every thing thus far has exceeded the most sanguine expectations, and there does not appear to be the slightest indication of any thing short of entire success.

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* THE ASSOCIATION FOR BUILDING MODEL LODGING HOUSES FOR THE POOR had its origin in a public meeting held in Warren Street Chapel, on the 12th of June 1846. At this meeting a committee, consisting of S. H. Perkins, Charles F. Barnard, H. T. Bowditch, Walter Channing, James R. Richards, D. R. Chapman, and Edward Winslow, was appointed "to consider the expediency of providing better tenements for the Poor." The Report of this committee was drawn up with great care, and after much research, and was published in a pamphlet of thirty-six pages.

The tenants invariably pay their rent a week in advance, with an alacrity and certainty that are the best proofs of their being comfortably located, fairly treated, and fully satisfied. To your private ear they might testify to more than that. Not a day or a dollar has been lost in the rent account. Hundreds of applicants have been waiting from the beginning in the vain hope of vacant apartments. The few necessary regulations of the Corporation have been cheerfully and completely observed. The Trustees by their welcome daily or weekly visits, by the establishment of a Circulating Library, and by other acts of kindness and brotherhood, have done every thing in their power to deserve success.

* * * * Next to the means of mental, moral, social, and religious culture, and far above all soup houses and every other form of public relief, stand these truly model tenements. Indeed, of what avail are our schools, our chapels, and our churches, if the pupils and hearers do not lodge and cannot live as they should?"

Mr. Lawrence had the satisfaction to know that his wise and munificent donation to Harvard College, was justly appreciated in his own family, and in the world of science, as the following particulars will show.

After reading his brother's letter to the Hon. Samuel A. Eliot, Treasurer of Harvard College, accompanying his donation of $50,000, Mr. Amos Lawrence addressed him the following note:*

"WEDNESDAY MORNING, June 9, 1847.

DEAR BROTHER ABBOTT:—I hardly dare trust myself to speak what I feel, and therefore write a word to say that I thank God I am spared to this day to see accomplished by one so near and dear to me this last best work ever done by one of our name, which will prove a better title to true nobility, than any from the potentates of the world. It is more honorable, and more to be coveted, than the highest political station in our country, purchased as those stations often are by time-serving. It is to impress on unborn millions the great truth that our talents are trusts committed to us for use, and to be accounted for when the Master calls. This magnificent plan is the great thing which you will see carried out, if your life is spared; and you may well cherish it as the thing nearest your heart. It enriches your descendants in a way that mere money never can do, and is a better investment than any one you have ever made.

Your affectionate brother AMOS

TO ABBOTT LAWRENCE."

In a letter to a friend, soon after, the same brother writes: "This noble plan is worthy of him: and I can say truly to you that I feel enlarged by his doing it. Instead of our sons going to France, and other foreign lands for instruction, here will be a place, second to no other on earth, for such teaching as our country stands now in absolute need of." These expressions of approbation from one with whom he had taken counsel not only in great mercantile and manufacturing operations, by which their large fortunes had been amassed, but in plans for expending the fortunes thus accumulated, in advancing great public interests, as well as in private charities—must have been particularly precious.

In his last painful illness, when "it is not what we have done for ourselves, but what we have done for others, we think of most pleasantly," Mr. Lawrence received a letter from Prof. Benjamin Peirce, of Cambridge, (than whom there can be named no one more competent to judge of the thoroughness and value of scientific training), respecting "the magnificent examinations" of the students of the Scientific School, which was published in the Boston Daily Advertiser of July and from which, we subjoin extracts: —

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* Extracts from the Diary and Correspondence of the late Amos Lawrence; edited by his son. P. 244. Boston: Gould & Lincoln. 1855.

> "A portion of the pupils examined were in the Chemical Department, and the remainder in that of Engineering. The appearance of the students has been excellent in every respect; and, with those in the Chemical department, I have been especially astonished at their brilliant success. Their replies were uniformly characterized with high precision and accuracy; and, the variety of subjects, with which they exhibited a familiarity worthy of masters in science, evinced the extent and thoroughness of their attainments. I am now persuaded that a new era of American education has really commenced with this school. * * These magnificent examinations should not be conducted with such extreme privacy, but the public should be induced to attend them as freely as those of West Point, and the Naval Academy. * * I cannot conclude without congratulating you upon the success which has been at length attained; and, it must smooth the pillow of your sickness to feel that your noble endowment is beginning to return a hundred fold in blessings to the country, and in benedictions upon its generous founder. You must greatly rejoice that the great and greatly loved man (Prof. Agassiz), whom you have placed with us as a colleague, is at length enabled to bless America with the rich productions of his fertile genius."

The death of Mr. Lawrence occurred during the Annual Session of the *American Association for the Advancement of Science*, at Providence. After announcing the fact, Prof. A. D. Bache, Superintendent of the Coast Survey, introduced resolutions expressive of the sincere condolence of the members of the Association with the bereaved family, and of their sense of the public loss in the decease of one of the most munificent patrons of science in the United States, who had identified his name forever with its progress by the foundation of the Scientific School. These resolutions were sustained with much feeling by the Rev. Dr. Wayland, of Brown University, Hon. S. B. Ruggles, of New York, Prof. Silliman, of Yale College, and other gentlemen eminent in the literary and scientific world, and adopted by each member rising in his seat.

Mr. Lawrence married on the 28th of June, 1819, Katharine Bigelow, eldest daughter of Hon. Timothy Bigelow, of Medford, who was a distinguished lawyer of his time, and held high State offices, those of Speaker and Councellor for many years. Eight children were the fruits of this marriage, three of whom died in infancy. The other five (three sons and two daughters) are all married and all reside in Boston.

Mr. Lawrence will long be remembered with pride by the mercantile community in which he lived, as a bright example of professional probity, sagacity, enterprise, and success; by the city, to whose prosperity he so largely contributed, and of whose numerous humane and literary institutions he was a liberal benefactor, and by the poor, whom he never forgot while living, and whose comfortable homes he will multiply when dead. By a large circle of friends at home and abroad, his presence will be associated with high honor, incorrupt integrity, cordial hospitality, a true and generous patriotism, and the noble graces of a christian faith. In the wide republic of letters and science, which knows no boundaries of city or country, his name will be associated now and in all coming time, with the University at Cambridge, as the founder of its Scientific School—as one, who in the language of Edmund Burke, "not contented with reigning in the dispensation of happiness, during the contracted term of human life strains with all the graspings of a vivacious mind, to extend the dominion of its bounty beyond the limits of nature, and to perpetuate itself through generations of generations as the guardian, the protector, and the nourisher of mankind."

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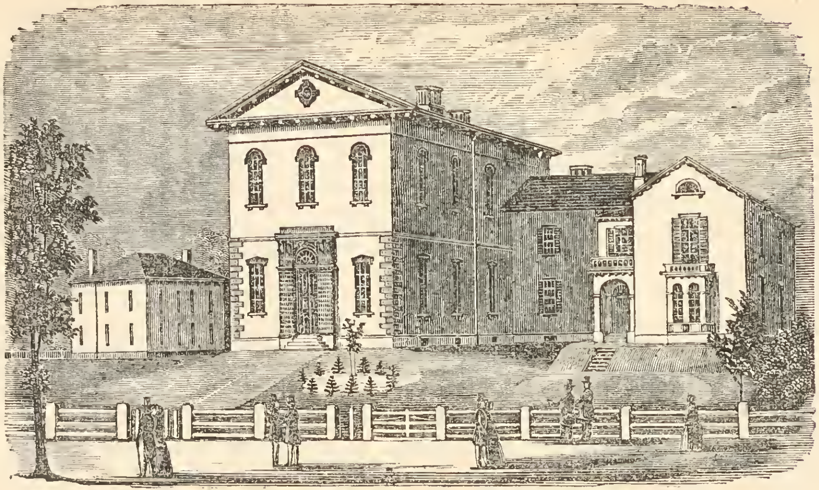
* Of Mr. Lawrence's Educational donations and bequests, besides the sum of $100,000 to the Scientific School at Cambridge, and $50,000 to the Model Lodging Houses, we may add the gift of $4,000 to the English High School and Latin School ($2,000 to each), as a fund for annual prizes, $5,000 to the Public Library of Boston, and $5,000 to the Franklin Library of Lawrence. His Pastor says: "He was in the *habit* of giving during his life, to every meritorious public object, every benevolent institution, every incorporated charity, and every association of a mere private nature for the relief of want." The amount of these donations exceed $250,000, while his private charities were numerous and constant, ranging from $3000 to $5000 a year. Of them Dr. Lothrop, in his Discourse, on the Sabbath following the funeral, mentions the following as having been "made known to me amid a scene of interest and solemnity, that we shall not soon forget. At the close of the funeral services on Wednesday, while crowds were passing up this aisle, to look upon the face of the dead, as I was standing here just beneath the pulpit, a gentleman, who I saw at once was a clergyman, came, and addressing me by name, asked if he might speak to me a moment. My reply was, 'Can you not chose some other time? I can not attend to any business amid this scene and with that body lying there.' His answer was, rapid as he could speak, as if his heart was bursting for utterance, and with tears streaming down his cheeks, 'I must leave the city at two o'clock and must speak now. It is of him who has left that body I would speak. Eighteen years ago I was a poor boy in this city, without means, and without friends. I was a member of the Mechanics' Apprentices' Association. Mr. Lawrence came to one of our meetings. He heard me deliver an essay I had written. He spoke to me afterwards—inquired into my circumstances and character. I made known to him my wants and wishes. He furnished me with means to acquire an education; when prepared, told me Harvard was best, but to go to what college I liked. I went to the Wesleyan University. He supported me at it. I am now a minister of the Gospel in the State of New York. I saw his death in the paper and a notice of his funeral to-day. I came on to attend it. He was my greatest benefactor. I owe it to him that I am a minister of the glorious gospel of Christ. I am not the only one he has helped thus. God will accept him. I felt that I must say this to some one, to whom can I better say it than to his clergyman?' and with this he hurried away, leaving me only time to learn his name and receive from him a kind promise to write to me."



LAWRENCE SCIENTIFIC SCHOOL AT CAMBRIDGE, MASS.

VIII. LAWRENCE SCIENTIFIC SCHOOL.

Practical instruction in the Mathematical, Physical, and Natural Sciences, upon a more extended plan than that pursued in the undergraduate department of Harvard, had been a subject of discussion previous to the time of President Everett. The materials for it had been accumulating. In addition to the Scientific men connected with the College, and the largest Library in the country, there were valuable collections of apparatus, numerous specimens of Natural History, a Botanic Garden, and an Observatory of the first rank. In his inaugural address,* [30th of April, 1846,] President Everett announced the project of a separate Scientific School in the following language:

> " It is a question well worthy to be entertained, whether the time is not arrived when a considerable expansion may be given to our system, of a two-fold character; first by establishing a philosophical faculty, in which the various branches of science and literature should be cultivated, beyond the limits of an academical course, with a view to a complete liberal education, and secondly, by organizing a school of theoretical and practical science, for the purpose especially of teaching its application to the arts of life, and of furnishing a supply of skillful engineers, and of persons well qualified to explore and bring to light the inexhaustible natural treasures of the country, and to guide its vast industrial energies in their rapid development."

About this time a vacancy occurred in the Rumford Professorship by the resignation of Professor Treadwell. This situation was filled by the election of Professor Horsford, of New York, who soon after his arrival in Cambridge, submitted to the corporation a plan for the erection and furnishing of a Laboratory for instruction in Chemistry, and its application to the arts contemplating an expense of $50,000. This plan, in an able letter from the Treasurer, Hon. Samuel A. Eliot, was laid before Hon. Abbott Lawrence, who responded in a spirit of munificence altogether unexampled as follows:

" Boston, June 7th, 1847.

My dear Sir,—

I have more than once conversed with you upon the subject of establishing a school for the purpose of teaching the practical sciences, in this city or neighborhood; and was gratified when I learned from you that the government of Harvard University had determined to establish such a school in Cambridge, and that a Professor had been appointed who is eminent in the science of Chemistry, and who is to be supported on the foundation created by the munificence of the late Count Rumford.

For several years I have seen and felt the pressing want in our community (and, in fact, in the whole country) of an increased number of men educated in the practical sciences. Elementary education appears to be well provided for in Massachusetts. There is, however, a deficiency in the means for higher education in certain branches of knowledge. For an early classical education we have our schools and colleges. From thence the special schools of Theology, Law, Medicine, and Surgery receive the young men destined to those professions; and those who look to commerce as their employment, pass to the counting-house or the ocean. But where can we send those who intend to devote themselves to the practical applications of science? How educate our engineers, our miners, machinists, and mechanics? Our country abounds in men of action. Hard hands are ready to work upon our hard materials; and where shall sagacious heads be taught to direct those hands?

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* Everett's Orations and Speeches, Vol. ii. p. 497.

Inventive men laboriously reinvent what has been produced before. Ignorant men fight against the laws of nature with a vain energyy, and purchase their experience at great cost. Why should not all these start where their predecessors ended, and not where they began. Education can enable them to do so. The application of science to the useful arts has changed, in the last half-century, the condition and relations of the world. It seems to me that we have been somewhat neglectful in the cultivation and encouragement of the scientific portion of our national economy.

Our country is rapidly increasing in population and wealth, and is probably destined in another quarter of a century to contain nearly as many inhabitants as now exist in France and England together.

We have already in the United States a large body of young men who have received a classical education, many of whom find it difficult to obtain a livelihood in what are termed the learned professions. I believe the time has arrived when we should make an effort to diversify the occupations of our people, and develop more fully their strong mental and physical resources, throughout the Union. We have, perhaps, stronger motives in New England than in any other part of our country, to encourage scientific pursuits, from the fact that we must hereafter look for our main support to the pursuit of commerce, manufactures, and the mechanic arts; to which it becomes our duty, in my humble judgment, to make all the appliances of science within our power. We inherit, and are forced to cultivate, a sterile soil; and what nature has denied should be, as far as possible, supplied by art. We must make better farmers, through the application of chemical and agricultural science.

We need, then, a school, not for boys, but for young men whose early education is completed, either in college or elsewhere, and who intend to enter upon an active life as engineers or chemists, or, in general, as men of science, applying their attainments to practical purposes, where they may learn what has been done at other times and in other countries, and may acquire habits of investigation and reflection, with an aptitude for observing and describing.

I have thought that the three great practical branches to which a scientific education is to be applied amongst us are, 1st, Engineering; 2d, Mining, in is extended sense, including Metallurgy; 3d, the invention and manufacture of machinery. These must be deemed kindred branches, starting from the same point, depending in many respects on the same principles, and gradually diverging to their more special applications. Mathematics, especially in their application to the construction and combination of machinery; Chemistry, the foundation of knowledge and an all-important study for the mining engineer, and the key to the processes by which the rude ore becomes the tenacious and ductile metal; Geology, Mineralogy and the other sciences investigating the properties and uses of meterials employed in the arts; Carpentry, Masonry, Architecture, and Drawing, are all studies which should be pursued, to a greater or less extent, in one or all of these principal divisions.

To establish such a school as I have endeavoured to describe in connection with the University, and under the care and general guidance of its government, requires buildings with suitable lecture-rooms and philosophical apparatus, with models and plans, and a place for their deposit and safe-keeping, together with a *Cabinet*, where every description of wood, ores, metals, &c., may be deposited for the use of the students. Without the above appliances, the Professors would be workmen without tools. The University has already appointed Mr. Horsford Rumford Professor, who proposes to give instruction upon an enlarged plan in the science of Chemistry. I have often heard Professor Horsford spoken of in terms of high commendation, and as in all respects competent to take charge of this important department of science, and to bring out the most favorable results. The testimony rendered at home to Mr. Horsford's capacity has been very agreeable to me, and had satisfied me that the selection made by the government of the College was fortunate; but I have lately learned, in addition to the high character given him by his friends here, that the great practical chemist of the age (Liebig) has given his most unqualified testimony to the ability and fidelity of Professor Horsford, who was the pupil of Baron Liebig for two years.

I deem it of the highest importance, and, in fact, essential, that none but *first-rate* men should occupy the Professors' chairs in this School. Its success depends upon the characters of the instructors. They should be men of comprehensive views, and acknowledged talents, possessing industry and integrity, with an enthusiastic devotion to the great interests of science. They should love their profession, and work in it day by day. Such teachers will soon gather around them a large number of pupils.

To carry out this course of education in its practical branches, there should be the most thorough instruction in Engineering, Geology, Chemistry, Mineralogy, Natural Philosophy, and Natural History. Chemistry is provided for; and in the last two branches, instruction might, perhaps, be given by the present College Professors. In addition to these, it would be necessary to obtain the services, at stated periods, of eminent men from the practical walks of life. The Law School is taught by distinguished lawyers of the highest reputation. The Medical School by distinguished physicians. In like manner, this School of Science should number among its teachers men who have practised and are practising the arts they are called to teach. Let theory be proved by practical results.

To defray the expenditures, means must be procured for the erection of suitable buildings (not including dwelling-houses), the purchase of apparatus, furniture, &c., and provision must be made for the comfortable support of the Professors and other teachers employed. For this purpose, let the students be invited freely from all quarters, at a moderate charge for tuition. Let the numbers be only limited by the size of the lecture-rooms, and I cannot entertain a doubt that a large revenue would be derived from tuition fees. I would suggest three permanent Professors, namely, one of Chemistry, (already appointed), one of Engineering in its various branches, and one of Geology. The support of the first is for the present time provided for. For the other two a moderate fund must be obtained, as a nucleus of a farther sum which should be added to it, to make the capital equal to that of the Rumford Professorship. The Professors in this School should depend, to a considerable extent, upon fees; it is the best guarantee to exertion and fidelity, and the permanent prosperity of the institution. I will therefore further suggest, that each of the above Professors shall receive, after all ordinary expenses shall have been paid, one half of the tuition fees till they amount to a sum, annually, not exceeding three thousand dollars, including their stated salaries; and that the government of the College pay such sums to other teachers, whether temporary or permanent, as they may deem expedient, and that the other half of the said tuition fees be reserved and added to any fund that may be hereafter contributed to establish and found the two Professorships before mentioned.

I have now, my dear Sir, given you a brief and very imperfect sketch of such a school of sciences as I believe the condition of our extensive and growing country requires, and you will ask how the means are to be obtained to carry out the plan, when we shall soon have an appeal made to our liberality, as well as to the sense of our best interests, to contribute a large sum of money for the purpose of finishing the astronomical department so auspiciously commenced in Cambridge. This department of science has already engaged the public sympathy, and will, I doubt not, be taken up at an early day, and placed in an independent and useful position. I cherish a wish to see the Observatory, the telescope, and every instrument required to prosecute the heavenly science, ready for use, and do not intend to interfere with the claims the world has upon our community to accomplish this great and important object. Nor do I mean to occupy the ground of another branch of science that will, I suppose, at a future time, present strong claims upon the public bounty. I allude to Natural history, now in charge of that accomplished naturalist, Dr. Gray. I wish to see all these branches of science prosecuted with vigor, and moving forward in perfect harmony at Cambridge.

"I therefore propose to offer, through you, for the acceptance of the President and Fellows of Harvard College, the sum of fifty thousand dollars, to be appropriated as I have indicated in the foregoing remarks. The buildings, I have supposed, without having made estimates, could be erected, including an extensive laboratory, for about thirty thousand dollars. If so, there will remain the sum of twenty thousand dollars; and I suggest that whatever sum may remain, after the erection and furnishing of the buildings, should form the basis of a fund, which together with one half of the tuition fees, till the amount shall yield the sum of three thousand dollars annually, shall be equally divided between the Professor of Engineering and the Professor of Geology, and be made a permanent foundation for these Professorships. The object is, to place the three Professors in this School in the same pecuniary situations. I beg to suggest, further, that the whole income of this School be devoted to the acquisition, illustration, and dissemination of the practical sciences for ever.

The details, however, and conditions of this donation, may be hereafter arranged between the Corporation and myself. I now leave the whole subject in the hands of the gentlemen composing the Corporation, in the hope and faith that the plan may be adopted and executed with as much expedition as may be consistent with economy; and that it may prove honorable to the University, and useful to the country.

I pray you, dear Sir, to believe I remain,
Most faithfully, your friend,
ABBOTT LAWRENCE."

Soon after the receipt of the donation of Mr. Lawrence, Professor Agassiz, of Switzerland, was invited to the chair of Zoölogy and Geology, and at a later period Lieut. Eustis, of the army, to that of Engineering. At the commencement of 1848, the corporation conferred upon the institution the name of "Lawrence Scientific School."

In the summer and autumn of 1849, a Laboratory,* unsurpassed in Europe even, in its conveniences for practical instruction, was erected and furnished, and in the year following a building was constructed for the temporary accommodation of the departments of Zoölogy, Geology, and Engineering. Besides the Professors already mentioned, the Faculty of the Scientific School embraces Professor Peirce in the department of Mathematics, Professor Lovering in Physics, Professor Gray in Botany, Professor Wyman in Comparative Anatomy and Physiology, and Professor Cook in Mineralogy.

The plan of the School has been modified from time to time, as the wants of the pupils in attendance and the experience of the Instructors made necessary. The School is essentially a collection of independent departments, each having the exclusive control of its own internal arrangements, without reference to other departments, and sustaining a complete course of instruction for itself.

The recent bequest of Mr. Lawrence, to the amount of $50,000, will enable the corporation, to further increase the facilities for instruction and research in the School.

We will now proceed to detail the requirements and courses of instruction in the Lawrence Scientific School, Cambridge.

REQUISITES FOR ADMISSION.—Candidates for admission must have attained the age of eighteen years, have received a good common English education, and be qualified to pursue to advantage the courses of study to which they propose to give their attention. They must furnish satisfactory evidence of good moral character, give bonds, in the sum of $200, signed by two bondsmen, one of whom must be a resident in Massachusetts, for the payment of all dues to the School, and register their names with the Dean of the Faculty. They will be admitted only at the commencement of a Term, except in extraordinary cases.

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* Plans of the Building occupied by the Scientific School, and of the Laboratory will be given in a future number of the Journal.

Requirements of Students.—Students of the Scientific School are required to board and lodge at licensed houses. They shall conduct themselves in a courteous and gentlemanly manner, and shall comply with all the regulations of the School and of the Department to which they belong. They are expected statedly to attend religious worship, at such place as their parents or guardians may direct.

A Scientific Student violating these regulations, or participating with an Undergraduate in an offence against the laws of the College, is liable to dismission from the School.

Degrees.—The degree of *Bachelor of Science* may be conferred upon any Student who, having attended the instructions of the School for at least one year, and completed the prescribed course of studies in one or more Departments, shall have passed a satisfactory public examination.

The Department or Departments in which the Student has been examined, and his grade of merit, will be specified in the Diploma, and each Diploma will bear the signatures of the President and Faculty.

Certificates may be granted to Students who do not graduate, stating the time they have been present in the School, the studies pursued, and the progress made.

Courses of Instruction.—The number and choice of studies are optional on the part of Students, who will, however, be counselled on these points by the Professors; but a punctual attendance on all prescribed exercises will be required.

I. Chemistry.—Professor Horsford will receive Special Students to the course of instruction in Experimental Chemistry and research, who will give their attendance in the Laboratory from 9 o'clock, A. M. till 5 o'clock P. M.

The course will include instruction in—

Theoretical and Experimental Chemistry, and Systematic Qualitative and Quantitative Analysis, in all their branches;

Pharmaceutical Preparations for the Laboratory and Apothecary, and the methods for the determination of the value of drugs generally;

Mineral assays, Metallurgy, analysis of Soils and Ashes, examination for poisons, manufacture of Manures, and the various determinations required in the practice of medicine.

The solution of problems of research in experimental science and in the applications of science to the arts and manufactures.

In addition to the practical instruction in Chemistry as an art, in which each Student is necessarily a class by himself, there is a systematic daily exercise, on the blackboard, in the solution and explanation of chemical problems.

A knowledge of Algebra, Geometry, and Trigonometry, and an acquaintance with Stöckhardt's Elements of Chemistry, or its equivalent, are required for admission.

Text-Books and Works for Reading and Reference.—Will's Outline of Chemical Analysis. Fresenius's Quantitative Analysis. Regnault's Elements of Chemistry. Gmelin's Hand-Book of Chemistry.

II. Zoölogy and Geology.—The instruction in this Department consists, alternately, of a course of Lectures by Professor Agassiz on Zoölogy, embracing the fundamental principles of the classification of animals, as founded upon structure and embryonic development, and illustrating their natural affinities, habits, geographical distribution, and the relations which exist between the living and extinct races; and of a course on Geology, both theoretical and practical. The course on Geology will be delivered during the First Term.

Besides the instructions of the lecture-room, Professor Agassiz will afford the Students access to his laboratory during certain hours, in order to show them how to observe isolated facts, how to determine living and fossil animals, how to identify rocks of different formations, and how to conduct a regular geological survey.

For those who intend to make a further study in these sciences, excursions in the neighborhood will be made in term-time, and longer excursions in vacation, to those parts of the country, near or remote, which offer the most instructive field for observation.

Text-Books and Works for Reading and References.—Hitchcock's Elementary Geology. De la Beche's Geological Manual, Geological Observer, and Researches in Theoretical Geology. Lyell's Elements of Geology, and Principles of Geology. Guyot's Earth and Man.

For Local Information.—Hitchcock's Geology of Massachusetts. Also, The Geological Reports published by the different States. Lyell's Travels in North America.

III. Engineering.—Professor Eustis will receive Special Students to the course of instruction in Engineering, who will give their attendance at the School from 9 o'clock, A. M. to 5 o'clock, P. M.

The course will include instruction in—

Surveying, with the use of the instruments, and actual operations in the field.

Drawing in all its branches; topographical, outline, shaded, and tinted, including Ismoretic Projections.

Analytical Geometry and Differential and Integral Calculus.

The principles of Mechanics, and their appilcation to Machinery and Engineering.

Descriptive Geometry.

The theory of shades, shadows, and perspective.

The application of Descriptive Geometry to masonry and stone-cutting in the construction of groined and cloistered arches, domes, &c.

The nature and properties of building materials, and their application to the construction of railroads, canals, bridges, &c.

The instruction will be given by daily exercises at the blackboard and by lectures.

A knowledge of Algebra, Geometry, and Trigonometry is required before admission.

IV. Botany. Professor Gray will give, during the Second Term, a course of instruction in Structural Botany and Vegetable Anatomy, with microscopical demonstrations. Also, a course of twenty-four Lectures on Systematic Botany.

Text-Books and Works for Reading and Reference. Gray's Botanical Text-Book, 4th ed. Gray's Manual of the Botany of the Northern United States. Mohl's Principles of the Anatomy and Physiology of the Vegetable Cell. Adrien de Jussieu, Cours Élémentaire de Botanique, or the English Translation.

V. Comparative Anatomy and Physiology. Special instruction will be given in the Anatomical Museum and Laboratory in Holden Chapel, by Professor J. Wyman.

During the Second Term of the present Academic Year, there will be delivered a course of thirty Lectures on Comparative Anatomy and Physiology, commencing in March, 1856.

Instruction will also be given to Medical Students in the usual branches of study necessary to a medical education.

Books of Reference.—Comparative Anatomy, by Siebold and Stannius, translated by W. I. Burnett, M. D. Carpenter's General and Comparative Physiology, 4th ed. Wagner's Comparative Anatomy of Vertebrated Animals. Rymer Jones's Outlines of the Animal Kingdom. Kirke's and Paget's Hand-Book of Physiology. Agassiz's Lectures on Comparative Embryology. Owen's Lectures on Comparative Anatomy. Müller's Physiology.

VI. Mathematics. Instruction will be given in the *Higher Mathematics*, and especially in *Analytical and Celestial Mechanics*, by Professor Peirce.

Private instruction in the various branches of Mathematics will be given to those desirous of receiving it, by competent instructors residing at the University.

Text-Book and Works for Reading and Reference. I. Curves and Functions. *Regular Course.* Peirce. Curves and Functions. Lacroix. Calcul Differentiel et Intégral. Cauchy. Les Applications du Calcul Infinitésimal à la Géométrie. Monge. Application de l'Analyse à la Géométrie.

Parallel Course. Biot. Géométrie Analytique. Cauchy. Cours d'Analyse de l'École Royale Polytechnique. Hamilton's Researches respecting Quaternions. (Transactions of the Royal Irish Academy, Vol. XXI.)

2. Analytical and Celestial Mechanics. Laplace. Mécanique Céleste, translated, with a Commentary, by Dr. Bowditch. Vol. I. Bowditch. On the Computation of the Orbits of a Planet or Comet; Appendix to Vol. III. of his Translation. Poisson. Mécanique Analytique. Lagrange. Mécanique Analytique. Hamilton. General Method in Dynamics, from the London Philosophical Transactions for 1834 and 1835.

Regular Course. Airy. Figure of the Earth, from the Encyclopædia Metropolitana. Gauss. Theoria Motuum Corporum Cœlestium. Bessel. Untersuchungen. Leverrier. Développements sur Plusieurs Points de la Théorie des Perturbations des Planètes. Leverrier. Les Variations Séculaires des Élémens des Orbites, pour les Sept Planètes Principales. Airy. Tides, from the Encyclopædia Metropolitana.

Parallel Course. Théorie des Mouvements de Mercure. Leverrier. Recherches sur les Mouvements de la Planète Herschel. Adams. Explanation of the Observed Irregularities in the Motion of Uranus, on the Hypothesis of Disturbances caused by a more distant Planet.

3. Mechanical Theory of Light. Airy. Mathematical Essays. MacCullagh. On the Laws of Crystalline Reflection and Refraction. (Transactions of the Royal Irish Academy, Vol. XVIII.) Cauchy. Exercices d'Analyse et de Physique Mathématiques. Neumann. Theoretische Untersuchung der Gesetze, nach welchen das Licht reflectirt und gebrochen wird. (Transactions of the Berlin Academy for 1835.)

VII. Mineralogy. Professor Cooke will receive, during the Second Term, Special Students to the course of instruction in Mineralogy at his Laboratory.

Text-Book. Dana's Mineralogy.

The following courses of Lectures delivered to Undergraduates will be open without charge to members of the Scientific School.

A course on *Chemistry*, by Professor Cooke.

A course on *Systematic Botany according to the Natural System*, by Professor Gray.

A course on *Physics*, in the Second Term, by Professor Lovering.

A course on *Human Anatomy and Physiology*, by Professor Wyman.

The formation of a Museum of Natural History, on an extensive scale, has been commenced, under the superintendence of the Professors in the several Departments.

The Anatomical Museum, the Botanic Garden, the Observatory, and the Public Library, are accessible to the Students of the Scientific School.

FEES for *special instruction* of those who become private pupils of any Professor, and pursue studies, practical exercises, or experimental research, or make excursions, under his particular direction, the fees are: —

In the Department of CHEMISTRY, for instruction six days in the week, per Term of twenty weeks *fifty dollars.* For Laboratory apparatus and supplies, *twenty-five dollars.* For one half or any less fraction of a Term, two thirds, of the above sums.

The Special Students in Chemistry will also supply themselves, at their own expense, with such articles of apparatus as are consumed in using, such as flasks, corks, tubing, lamps, crucibles, &c., together with alcohol and platinum, and gold and silver solutions.

In the Department of ENGINEERING, for instruction six days in the week, *fifty dollars* per Term. For three days in the week, two thirds, and for one day, one third, of the above sum.

The Special Students in Engineering, will supply themselves with drawing materials, necessary text-books, &c.

In any of the other Departments, the fees for special instruction may be agreed upon with the instructor.

The Lectures delivered in the Scientific School may be attended by members of the School, and by members of any of the Professional Schools, and by persons not otherwise connected with the University, on payment of a fee of five dollars *per course.* Students of the Scientific School may attend, without charge, any of the Lectures delivered to Undergraduates by the Professors in the Academical Department. They may also study any one of the foreign languages taught in the University, on payment of a fee of *five dollars* per Term.

The other expenses for a Term are nearly as follows,

Board, twenty weeks, from $ 3.00 to $ 5.00 per week,	from $ 60 to	$ 100
Room-rent, including care of room, but not making fires. .	26 to	75
Furniture (if the Student does not furnish his room), . .	10 to	20
Washing, ...	7 to	15
Fuel, for the First or Winter Term, from August to January,	12 to	25
" for the Second or Summer Term, from Febuary to July,	6 to	10
Servant (if one is employed) to make fires, &c.	5 to	10
	$120 to	$245

Fuel, prepared for use, is furnished by the lessee of the College Wharf, at the market price, if the Students desire it.

For further information concerning the School, application may be made to Professor E. N. HORSFORD, Dean of the Faculty.

IX. AMERICAN COLLEGES.

A SKETCH OF THE HISTORY OF ILLINOIS COLLEGE, JACKSONVILLE ILL

Of the many chartered institutions in our new States, which have come into being within the last quarter of a century, there are few whose beginnings have been attended with more thrilling interest, and with better promise, than those of Illinois College. It is not on this account, however, that we begin our series of historical sketches of American colleges, with one of this institution. It would have been better, perhaps, had we commenced with Harvard, and followed the order of their ages in our historical notices. But this would have been impracticable, without frequent delays in the series, for want of the necessary documents. We hope also, that, by suiting our demands to their convenience, the Presidents of colleges, or others connected with them, will be induced to furnish to our hands better histories of their own institutions, than it would be possible for us to condense from any published documents. No such history having yet reached us, from the older institutions, we are guided in our selection of Illinois College, as the subject of our present notice, by the fact, that its quarter centennial anniversary was celebrated at its last commencement, and we have in our hands, through the kindness of the author, President Sturtevant's "Historical Discourse," delivered on that occasion, and prepared for publication by order of the Trustees. It is both reliable in its statements, and touching and eloquent in its reminiscences. From this discourse, principally, are derived the materials of the following sketch.

Instruction was commenced in Illinois College on the 1st of January, 1830. It was then a day school for boys, with a single teacher. It was a college only in the intention and hopes of its founders, and in the providence of God. The moving principle, the all-pervading cause of the founding of this college, was the ever-abiding purpose of the religious people of this country to disseminate the influence of the Gospel by means of institutions of learning. "There is no feature of American society," says President Sturtevant, "which is more gloriously unique and characteristic. There is nothing like it in the history of colonization in any other nation or age of the world. It is prominently to this cause that we owe the inception and the growth of our whole system of higher liberal education. This cause was the parent of Harvard, Yale, and the other colleges of New England, and not less of Nassau Hall; and these are the parents of the college system of the whole country." He claims, also, for the founders of most of the colleges of our new States, that they have been impelled by the same motives, and actuated by the same principles, with our fathers of the older States; and they are encouraged by this fact to hope for a like signal success.

The subordinate causes and agencies, which resulted in the founding of Illinois College, were various and wide asunder in their origin, but moved by the same spirit of enlightened philanthropy.

On the one hand, the late Rev. John M. Ellis, having then just completed his studies at the Andover Theological Seminary, was sent as a missionary to the State of Illinois, by the American Home Missionary Society, in the year 1826. He found a population of 130,000, and but three Presbyterian ministers in the State. Other Christian churches were few, and feeble, and scattered; and there were few of competent qualifications to dispense the Word of Life. Impressed with the necessity of decisive measures in the very infancy of the State, he early conceived the idea of founding an institution of learning. His conceptions were clear and vivid of the necessities of coming generations in so great a State, and he urged his views with earnestness and self-sacrificing zeal. His efforts were seconded by enlightened and religious men, committees were appointed at his suggestion, various places were visited, Jacksonville was agreed on as the most desirable site, a subscription of about $3,000 was pledged, and a plan for the institution was adopted, which has since been greatly modified. It contemplated a Primary, a Collegiate, and a Theological Department, together with provision for the self-support of the students, in part, by manual labor. But the means secured were inadequate to the carrying out of a plan so complicated, and nothing further was done until the autumn of 1828, when Mr. Ellis, in his report to the Home Missionary Society, made a glowing statement of the present and prospective wants of the Western country, and particularly of Illinois, and appealed to the public for aid on behalf of the proposed institution at Jacksonville. This report was published in the *Home Missionary*.

In the mean time, another train of causes was in operation in quite a different quarter. There was, in Yale College, a Society of Inquiry concerning Missions. Most of its members were preparing for the Christian ministry, and their object was to acquire the information necessary to enable them to judge wisely in selecting their own fields of labor. They were accustomed, also, to exhort one another by such examples of Christian consecration as David Brainerd, Henry Martyn, and Samuel J. Mills, to forget their own private interests, in their devotion to the kingdom of Christ. Soon after a meeting of this sort, in November, 1828, several of the members held private conferences together, and agreed to associate, in the selection of some field, in the far distant West, where they might be sent as missionaries, and live and labor in each other's vicinity. The idéa was soon added, that they should unite their efforts in founding an institution of learning, to grow up with the people, and be to them what a New England college is to the surrounding population. This plan was fast ripening into action, when Mr. Ellis' report, in the *Home Missionary*, was received. The thought at once occurred to them, that, perhaps, that was the field to which God, in his providence, was directing them! A correspondence was immediately opened with Mr. Ellis, their proposal was more than welcomed by him and his associates, and early in the year 1829, seven young men, members of the Theological Department of Yale College, were prepared to subscribe their names to a solemn pledge, to one another, and to God, that they would devote their lives to the cause of Christ in the distant and wild State of Illinois. Of this association, President Sturtevant and Rev. Theron Baldwin—now Secretary of the Western College Society—were members, and were the first to enter the field. Each of the others followed in due time, and redeemed their pledge; and one only has been removed by death.

Having pledged themselves to this enterprise, the young men immediately commenced preparing and suggesting such modifications of the plan proposed by Mr. Ellis, as were necessary to adapt it to become the substantial basis of a university. In making these suggestions, they followed the advice of the President and Professors of Yale College. Their plan was readily adopted by the Trustees and subscribers at Jacksonville. The fundamental principles then adopted, which are still the basis of the institution, are thus expressed:

1. That there be a Board of fifteen members, besides the President of the institution, who shall have the entire direction of the Seminary, independent of any extraneous influence, and that they shall be sacredly pledged to appropriate all donations which they may choose to receive, according to the expressed wishes of the donors.
2. That the majority of the Board of Trustees, ever after its organization, shall have power to fill all vacancies occurring in the same.

"The true spirit of these two short sentences," says President

S., "is to be inferred from the fact, that the venerable advisers, whom we had consulted, had explicitly warned us against subjecting the institution either to political or denominational control."

The young men also engaged to raise $10,000 for the proposed institution, which, through the co-operation of their friends, they accomplished in a few months, and in the autumn of 1829, Mr. Baldwin and Mr Sturtevant went on their mission to Illinois, and on the 18th of December united with the Trustees and subscribers at Jacksonville in constituting a Board, according to the terms of agreement. A substantial edifice of brick, which now constitutes the south half of the College building, was already erected and partly finished. In that building instruction was commenced. Mr. Sturtevant was the only teacher, with nine pupils, who were increased to thirty before the close of the year, all in the rudiments of study. In the course of that year, Rev. Edward Beecher, D.D., of Boston, was elected President of the institution, and entered upon his duties in 1831.

"Two enterprises entered on, the next year, to both of which the Trustees were almost irresistibly impelled, by the public opinion of the time, have proved unprofitable to all concerned, and the chief sources of all the embarrassments of the institution. They were the erection of the large building, for dormitories, which was destroyed by fire in 1852, and the establishment of a system of manual labor, as conducive to the health and economy of the students."

The large building referred to, was erected in accordance with a long established and then unquestioned opinion of the necessity of such an outlay. It was an error, for which the public opinion of the time was responsible; and long before the building was destroyed, the Trustees had become entirely convinced of the badness of the system, and were prepared for the adoption of a better. The students immediately sought and obtained private accommodations, and the advantage, on the score of social and moral habits, has been greatly in favor of the present system. Discipline, also, is more easy and salutary.

The other unfortunate enterprise is thus alluded to by the President: "The scheme of manual labor-schools was one of the then newborn favorites of the more ardent class of progressives, but had been very generally received by the public, and must needs be subjected to the test of experience. This College came into being just at the unlucky moment, when it must needs bear a part in the experiment."

The scheme, however, after considerable pecuniary loss, was abandoned, as fallacious and impracticable.

The Trustees made early application to the Legislature for a charter, but met with much opposition, and were not incorporated until 1835; and when the charter was granted, it limited the quantity of land which the corporation might possess to a single section, and forbid the establishment of a Theological Department. But these restrictions have since been removed, and are worthy of mention only as way-marks of the progress of legislation, in Illinois, in intelligence and liberality..

The first class graduated in 1835, and consisted of two members only. The whole number of alumni is now one hundred and thirty, of whom one hundred and eighteen are living. The institution has also afforded partial instruction to more than a thousand pupils, through whom it is exerting an important influence on the social, moral, and religious destinies of the State and of the world. It has, indeed, been greatly blessed in its religious interests; many have been hopefully converted within its walls, and are occupying useful positions in the ministry and in other professions.

It has been objected to this College, that it has had fewer names on its annual catalogues than most Western colleges, with which it has been compared. This is accounted for by Dr. S., from the fact, that its Trustees have been more select in their object. They have not sought to monopolize the education of the region in their own institution, but to give it its proper place in a system adapted to the wants of the people of the State. They have accordingly made less of their Preparatory Department than some other Western colleges, and have encouraged the public schools in its vicinity, and other institutions—the Female Academy of Jacksonville, the Institution for the Deaf and Dumb, the Hospital for the Insane, an institution for instructing the blind, the Female College of the Methodist Conference, the Berean College, and a public school on a generous plan, already numbering more than five hundred pupils—so that it is doubted whether there is another place on the continent, which, in proportion to its population, equals Jacksonville in the number of its institutions of education and philanthropy.

This College has passed through one great financial crisis, which brought it very near the point of extinction. A subscription of more than one hundred thousand dollars had been obtained in 1835–6, the interest of which was relied on for current expenses, and the payment of debts incurred in providing for the manual labor scheme, the principal to be paid at a future day. But this was swept away by the pecuniary revulsion which followed. The subscription utterly failed, and the College was relieved of its debt only by parting with its property, excepting its necessary fixtures at Jacksonville. And here it must have suspended its operations in 1848, but for the annual appropriation it was then, and is still receiving, from the Western College Society.

Since that time a brighter day has dawned. A permanent endowment has been secured of $35,000, and measures are in operation by which it is hoped soon to increase it to $50,000, principally at the West. The institution may now be regarded as fully established, on a plan adapted to indefinite expansion, and to permanent and immense usefulness, in a great State unsurpassed for natural resources, and in immediately prospective wealth and population.

Soon after the resignation of Dr. Beecher in 1844, Mr. Sturtevant was elected President, and the following names now constitute the Faculty of Illinois College:

Rev. JULIAN M. STURTEVANT, D.D., *President*, Professor of Moral Philosophy, and Blackburn Professor of Divinity.

SAMUEL ADAMS, A.M., M.D., Professor of Chemistry and Natural Philosophy

Rev. WILLIAM SANDERS, A.M., Professor of Rhetoric and Elocution.

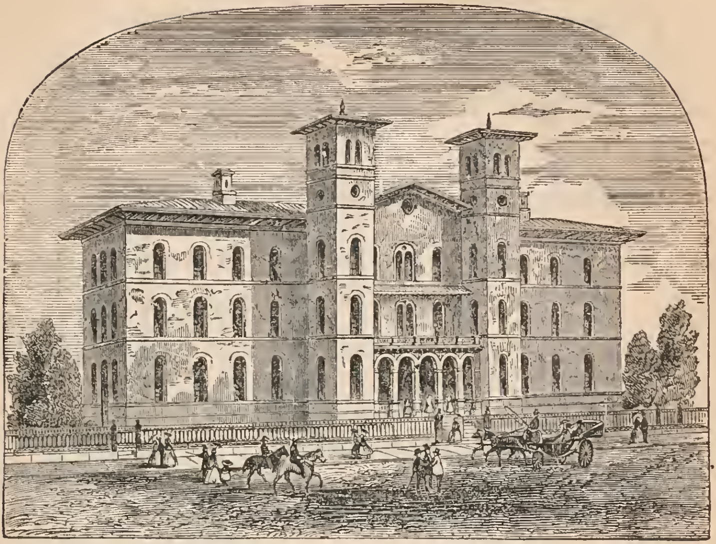
Rev. RUFUS NUTTING, Jr., A.M., Professor of the Greek and Latin Languages and Literature.

RUFUS C. CRAMPTON, A.M., Professor of Mathematics and Astronomy.

JOSEPH C. PICKARD, A.M., Tutor in Modern Languages and Literature.

ALFRED N. DENNY, A.B., Tutor in the Preparatory Department.

If it is considered that the population of Illinois was only about 160,000 at the time when instruction was first commenced in this College, and that it was thus early planned and sustained by the exertions of a few young men, as an indispensable auxiliary to their work as Christian missionaries to a new State, its inception and the wisdom with which it has been planted and conducted must be regarded as quite extraordinary. The religious principle which led to the undertaking, in an age of great benevolent enterprises, was neither new nor singular. Still, it was a bold endeavor to do a great thing for the cause of learning and of Christian civilization in the great West, whose western boundary was then within the valley of the Mississippi. And there is a moral sublimity in the steady perseverance with which those young men have grown old in the prosecution of their enterprise. In the mean time, the population of the State has become 1,100,000, and Illinois College, as the parent institution, holds a proud eminence among the many schools and colleges which now constitute the educational system of that immense commonwealth, and honorably co-operate in elevating the standard of instruction, and in diffusing useful knowledge and salutary principles among the people. P.



Plans and Description of the Building for the Female Institute, Richmond, Virginia.

The Richmond Female Institute was established under a charter from the Legislature of Virginia, passed March 2, 1853, with authority to confer diplomas and literary distinctions,—" to offer to young ladies the facilities for instruction to be found in our best colleges for young men." It embraces three departments—a Preparatory, Collegiate, and Esthetic; and in 1855, there were fifteen teachers, and 250 pupils.

The building was designed with much care by Mr. Thomas A. Teft, Architect of Providence, R. I., after a general plan submitted by Rev. Basil Manly, Jr., the President of the Institute. The lot has a front of 326 feet, and is beautifully located in one of the most central, shaded, and eligible neighborhoods in the city.

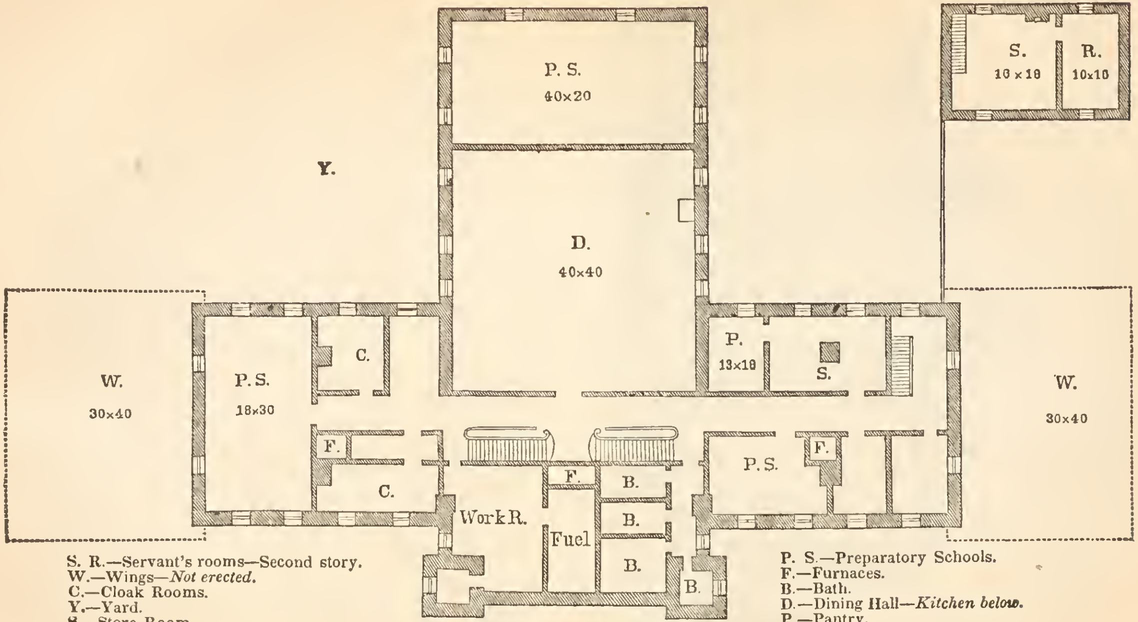
When completed the building will present a front of 185 feet. The wings each 30 feet as shown in Fig. 2, are not yet erected. In the Basement, which is above ground, are two school-rooms for the Preparatory Department, each 40 by 20; dining-rooms, store-rooms, bathing-rooms, &c. Beneath is a sub-basement for kitchen, fuel, &c.

On the First Story, [Fig. 3,] are two parlors for boarders and visitors, the school-room of the Collegiate Department, five recitation rooms, &c., parlor and sitting room for the President's family, and the Steward's office.

On the Second Story, [Fig. 4,] is the Library and Reading-room, and four rooms for musical instruction, with chambers for boarders.

On the Third Story, [Fig. 4,] the room over the Library is occupied for lectures by the Professor of Chemistry and Natural Philosophy, with rooms adjacent for apparatus and Laboratory.

In the Attic, or Fourth Story, are two rooms lighted by sky-lights for drawing and painting, and a large hall for calisthenic exercises. One of the towers is used as a belfry, and the other as an observatory. The whole building is warmed by four furnaces, ventilated by properly constructed flues, lighted by gas, and provided with water in every apartment.

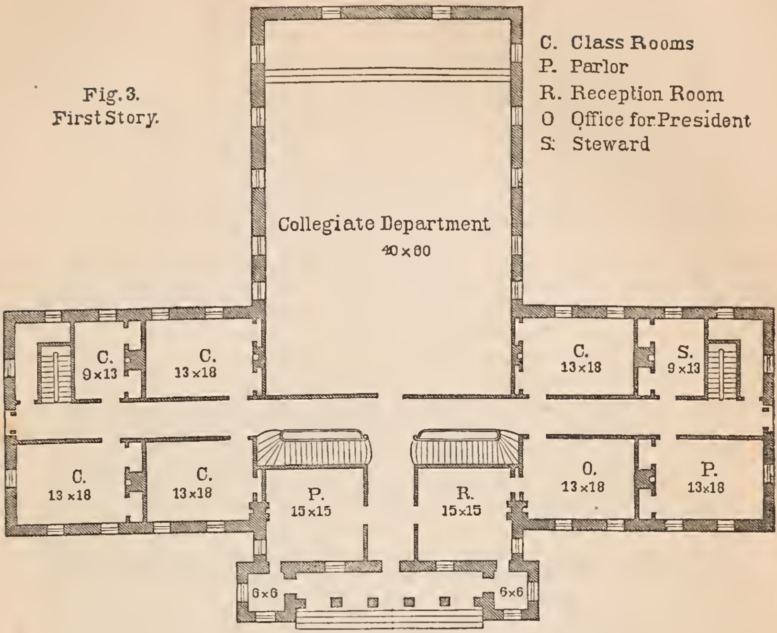


S. R.—Servant's rooms—Second story.
W.—Wings—*Not erected.*
C.—Cloak Rooms.
Y.—Yard.
S.—Store Room.

P. S.—Preparatory Schools.
F.—Furnaces.
B.—Bath.
D.—Dining Hall—*Kitchen below.*
P.—Pantry.

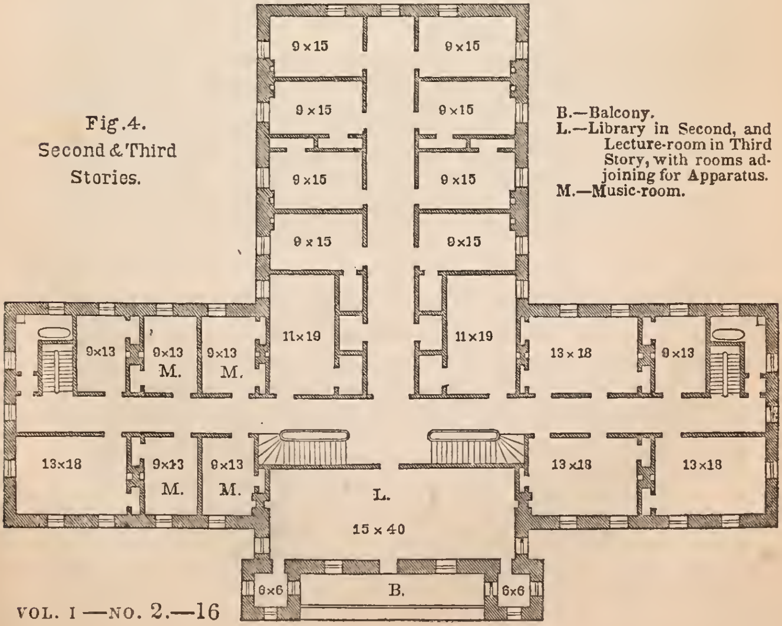
Fig. 2. BASEMENT STORY.

Fig. 3.
First Story.



C. Class Rooms
P. Parlor
R. Reception Room
O Office for President
S. Steward

Fig. 4.
Second & Third
Stories.



B.—Balcony.
L.—Library in Second, and Lecture-room in Third Story, with rooms adjoining for Apparatus.
M.—Music-room.

XI. EDUCATIONAL INTELLIGENCE.

AMERICAN INSTITUTE OF INSTRUCTION.

The twenty-sixth annual meeting of this association convened in the city of Bath, Me., on the morning of the 21st of August last, and continued its sessions three days—holding three sessions each day—the President, Thomas Sherwin, Esq., Principal of the Boston High School, being in the chair. The citizens manifested much interest in the meeting, and the attendance of teachers and others from abroad was numerous. In course of the sessions, lectures were delivered to large audiences, on the following subjects, viz.: on the question, "May Teaching take rank as a Profession?" by Prof. Tweed, of Tufts College, Massachusetts. This lecture was spoken of as a very ingenious and valuable discussion. "On the Moral Office of the Teacher," by Rev. G. Reynolds, of Roxbury. Mass.—a discourse marked with sound sense and practical views, able and interesting. "On the Education of our Daughters," by Rev. E. P. Weston, Principal of a Female Seminary in Maine—a discriminating and urgent appeal for a high standard of female education. "On Unconscious Tuition," by Prof. Huntington, of Cambridge. This exceedingly rich and genial production constitutes the leading article in the present number of our JOURNAL AND REVIEW. The Rev. Thomas Hill, of Massachusetts, also delivered a lecture, and maintained with earnestness and ability that "Geometry must be, by eternal laws, the foundation of all learning."

Interesting discussions were intermingled with the business and public performances of the sessions; and two questions were especially considered, viz.: 1. "Ought the State to Furnish Free Collegiate Education to its Citizens?" 2. "The Relative Importance of Ancient Classical and Scientific Studies to an American System of Education." On these topics and others, which came up for occasional discussion, earnest and spirited remarks were made by Rev. Dr. Sears, Prof. Crosby, Mr. Hill, Mr. Reynolds, Mr. Allen, of Worcester, Mr Bunker, of Nantucket, Rev. Mr. Cushman, of Newcastle, and others. P.

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION.

The fifth session of this association was held in the city of New York, in the Chapel of the University, on the 28th, 29th, 30th, and 31st of August.

Addresses were made and papers read by the retiring President, Prof. A. D Bache, on a "National Free University;" by President H. P. Tappan, of the University of Michigan, on "Progress of Educational Development;" by Rev. E. B. Huntington, of Stamford, Ct., on "Mental and Physical Activity;" by Rev. Charles Brooks, of Boston, on "Moral Education in Schools;" by J. N. McElligott, of New York City, on "Debating as a means of Educational Discipline;" by Prof. F. D. Huntington, of Cambridge, Mass., on "Unconscious Tuition;" by Prof. D. Olmsted, of New Haven, Ct., on the "Democratic Tendency of Science;" by Prof. Taylor Lewis, of Schenectady, N. Y., on "The Best Modes of Studying the Greek and Latin Languages;" by Prof. John Proudfit, of New Brunswick, N. J., on "The Study of Portions of the Greek and Latin Fathers in Schools and Colleges;" by Prof. H. J. Anderson, of New York City, on "Physical Science in Reference to the Support of its Higher Schools;" by Prof. F. A. P. Barnard, of Oxford, Miss., on "Improvements Practicable in American Colleges;" and by J. G. Hodgins, of Toronto, on the "System of Public Education in Upper Canada."

In the discussion of the topics of these lectures and papers a large number of members from different parts of the country participated. The meeting was one of the largest in point of attendance, and the character of the papers and discussions one of the most interesting and profitable which has been held in the country.

The sixth annual meeting will be held in Detroit, commencing on the second Tuesday of August, 1856. B.

WESTERN COLLEGE SOCIETY.

The Society for the Promotion of Collegiate and Theological Education at the West held its twelfth anniversary in Providence, R. I., October 31st.

The annual discourse was delivered by the Rev. R. S. Storrs, Jr., D.D., of Brooklyn, N. Y., on the preceding evening, to a crowded audience in the High Street Church. A copy of this admirable discourse was requested for publication, but it is the wish of the Society to secure its repetition in several places before it is issued from the press.

At the anniversary exercises in the Central Church, the Rev. Prof. Goodrich, of Yale College, presided, and the meeting was opened with prayer by the Rev. E. V. Gerhart, President of Franklin Marshall College, Lancaster, Pa. An abstract of the annual report was read by the Corresponding Secretary, Rev. T. Baldwin, and interesting addresses were delivered by Rev. R. W. Clark, D.D., of Boston, and Rev. Dr. A. D. Smith, of New York.

The main points considered in the report are the difficulty of so constructing the great argument of the Society that it could be fully apprehended by the popular mind, and the still greater difficulty of securing its adequate diffusion; the case of Western Reserve College; the publication of Tyler's Essay on Prayer for Colleges, as marking a new era in the history of the Society; revivals of religion in the institutions aided; the death of the Rev. J. M. Ellis; the necessity of accurate information in regard to the West, and the best means of securing it; the importance of a full development of Western resources, and a prevention of the needless multiplication of colleges, in order that no unnecessary burdens may be imposed upon the Eastern churches. The growing feeling at the East, that the West ought to sustain its own institutions, was alluded to, and erroneous views in respect to the *available* resources of the Western country guarded against.

The progress of the Society was shown to be real and highly encouraging, but yet sadly slow when compared with the rapid and wondrous development of the West. Ten colleges have been aided during the year, viz., Marietta, Wittenberg, and Heidelberg Colleges, Ohio; Wabash College, Indiana; Illinois and Knox Colleges, Illinois; Beloit College, Wisconsin; Iowa College, Iowa; German Evangelical Missouri College, Missouri; and Pacific University, Oregon. Knox College would no longer apply for aid, making the third institution which had come off from the Society's list as not needing further assistance. Another, Wittenberg, would follow at the close of the next year, and two or three others were making rapid advances toward a state of independence in respect to foreign aid. The importance of doing up the whole work of the Society *east of the Mississippi* was especially set forth.

The College of California was received upon the list of the Society, making ten Institutions in all, which will receive aid during the next year. Applications were also received from three new Institutions, viz., Webster College, Missouri; Yellow Spring College, Iowa· and the College of St. Paul, Minnesota. These applications were referred to a special and able Committee, composed of individuals representing the two denominations which co-operate in the Society who are to send a part of their number West, to make personal examination of all these cases. The Committee are also expected, in their report to the Board, to give special consideration to the true principles of co-operation in the work of establishing colleges at the West.

It appeared from the Treasurer's Report that the balance in the treasury at the close of the previous year (including $1,672 subject to outstanding drafts) was $2,501 34—the total receipts, $19,391 14; and the entire resources of the year, $21,892 48. More money had passed through the treasury for the benefit of colleges than in any previous year; but present resources were entirely inadequate to meet the growing demands.

The Rev. Dr. Brainerd, of Philadelphia, was appointed to deliver the next annual discourse before the Society, and the Rev. Dr. Kirk, of Boston, his alternate. The Society adjourned to meet on the last Tuesday in October, 1856, at the First Congregational Church in Bridgeport, Conn.

The Board of Directors were in session at Providence the two days preceding the anniversary of the Society. At these sessions the reports of the Secretary and Treasurer were carefully considered, and other important business was transacted.

Each Institution upon the list of the Society is required annually to furnish the Board with a financial statement, showing its resources, income, expenses, and wants, together with such other facts and considerations as may go to sustain its appeal for aid, and enable the Directors to reach an intelligent decision in respect to its claims upon the treasury. These applications were read and carefully considered, and then appropriations made for the year according to their supposed relative demands.

When new institutions apply for aid, they are required to furnish the appropriate documents in relation to their terms of incorporation, their officers, trustees, and students, descriptions of their locations, their relations to similar enterprises in the same region of country, their resources, present or prospective, etc., etc., that the Board may know their true condition, and so appreciate their claims to the assistance desired. These several points are then thoroughly considered by the Directors, and if doubt remains, special committees are sent to the West to make personal examination.

BOOK-NOTICES DEFERRED.

Our acknowledgment of books received which we had prepared for this number of the Journal, is deferred for the want of room. It will not be forgotten in our next.

George Peabody

THE

American Journal of Education.

No. III.—MARCH, 1856.

I. EDUCATION,

A DEBT DUE FROM PRESENT TO FUTURE GENERATIO

ILLUSTRATED IN THE ENDOWMENT OF THE PEABODY INSTITUTE, DANVERS, MASS.

On the 16th of June, 1852, the citizens and sons of Danvers, in Massachusetts, assembled for the purpose of celebrating the centennial anniversary of the town's existence. A vast concourse came together, and the streets were enlivened by music, and rendered attractive by the long-extended procession of company after company, of the old and young, and of both sexes, all striving to contribute to the interest, and share the pleasure of the joyous occasion. After proceeding through the principal streets, they repair to the "Mammoth tent," within which was a bountiful supply of those "creature comforts," which are preparatory to the "feast of reason and the flow of soul." Many sentiments and speeches had already been made, when the attention of the multitude was requested to a letter and sentiment from a long absent and almost forgotten, (henceforward *never to be forgotten*) son of Danvers. With the most profound interest, the following letter and noble sentiment were listened to: a letter and a sentiment which honor the heart of him who sent them:—

London, May 26th, 1852.

Gentlemen:—I have the honor to acknowledge the receipt of your letter, inviting me to be present at the celebration of the one hundredth anniversary of the separation of Danvers from Salem, on the 16th of June.

I should have the greatest pleasure in joining in your interesting celebration there, if possible. The early associations of my life are clustered around *our* ancient town. It was, as many of you know, in a very humble house in the South Parish, that I was born, and from the Common Schools of that parish, such as they were in 1803 to 1807, I obtained the limited education my parents' means could afford; but to the principles there inculcated in childhood and early youth, I owe much of the foundation for such success as Heaven has been pleased to grant me, during a long business life. Though my manhood, before coming to England, was spent in Baltimore, (which shares with my native town in my kindest feelings,) I still cherish the recollections of my earlier days, and anticipate, with much pleasure, a visit to the old parish, that I may witness the great strides I am told you have been making in wealth and improvements.

It is now nearly sixteen years since I left my native country; but I can say with truth, that absence has only deepened my interest in her welfare. During this interval, I have seen great changes in her wealth, in her power, and in her position among nations. I have had the mortification to witness the social standing of Americans in Europe, very seriously affected, and to *feel* that it was not entirely undeserved; but, thank Heaven, I have lived to see the cause nearly annihilated, by the energy, industry, and honesty of my countrymen; thereby creating between the people of the two great nations speaking the English language, and governed by liberal and free institutions, a more cordial and kind feeling than has existed at any other time.

The great increase of population and commerce of the United States, the development of the internal wealth of the country, and enterprise of her people, have done much to produce this happy change; and I can scarcely see bounds to our possible future, if we preserve harmony among ourselves, and good faith to the rest of the world, and if we plant the unrivalled New England institution of the Common School, liberally among the emigrants who are filling up the great valley of the Mississippi. That this may be done, is, I am persuaded, no less your wish than mine.

I enclose a sentiment, which I ask may remain sealed till this letter is read on the day of the celebration, when it is to be opened according to the direction on the envelope. With great respect, I have the honor to be

Your fellow townsman,

To Messrs. J. W. Proctor, and others. George Peabody.

The endorsement on the envelope was as follows:—

(The seal of this is not to be broken till the toasts are being proposed by the Chairman, at the dinner 16th June, at Danvers, in commemoration of the one hundredth year since its severance from Salem. It contains a sentiment for the occasion from George Peabody, of London.)

It will be easier to imagine than to describe the intense interest which this awakened, and the pleasant astonishment and delight with which the contents of the envelope were received. They were as follows.

A sentiment by George Peabody, of London. EDUCATION,—A DEBT DUE FROM PRESENT TO FUTURE GENERATIONS.

In acknowledgement of the payment of that debt by the generation which preceded me in my native town of Danvers, and to aid in its prompt future discharge, by each successive generation, I give to the inhabitants of that town, the sum of * Twenty Thousand Dollars, for the promotion of knowledge and morality among them.

I beg to remark, that the subject of making a gift to my native town, has for some years occupied my mind, and I avail myself of your present interesting festival, to make the communication, in the hope that it will add to the pleasures of the day.

I annex to the gift such conditions only, as I deem necessary for its preservation and the accomplishment of the purposes before named. The conditions are, that the legal voters of the town, at a meeting to be held at a convenient time after the 16th June, shall accept the gift, and shall elect a Committee of not less than twelve persons, to receive and have charge of the same, for the purpose of establishing a Lyceum for the delivery of lectures upon such subjects as may be designated by a Committee of the town, free to all the inhabitants, under such rules as said Committee may from time to time enact; and that a Library shall be obtained, which shall also be free to the inhabitants under the direction of the Committee.

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* Mr. Peabody has, subsequently, given for the same object, the additional sum of forty thousand dollars; making, in the aggregate, sixty thousand dollars. He has also increased the Library, by presenting about three thousand valuable volumes, purchased in London, by Henry Stevens, Esq.

That a suitable building for the use of the Library shall be erected at a cost, including the land, fixtures, furniture, &c., not exceeding seven thousand dollars, and shall be located within one third of a mile of the Presbyterian Meeting House, occupying the spot of that formerly under the pastoral care of the Rev. Mr. Walker, in the south parish of Danvers.

That Ten Thousand dollars of this gift shall be invested by the Town's Committee, in undoubted securities as a permanent fund, and the interest arising therefrom, to be expended in support of the Lyceum.

In all other respects, I leave the disposition of the affairs of the Lyceum to the inhabitants of Danvers, merely suggesting that it might be advisable for them, by their own act, to exclude sectarian theology and political discussions, forever from the walls of the institution.

I will make one request of the Committee, which is, if they see no objection, and my venerable friend, Capt. Sylvester Proctor,* should be living, that he may be selected to lay the corner-stone of the Lyceum building.

Respectfully Yours,
GEORGE PEABODY.

No sooner had the reader ceased, than the air resounded with hearty and prolonged cheers for the name of GEORGE PEABODY, the grateful son who had thus decidedly manifested his regard for the home of his youth, and generously discharged his share of the "debt due from the present to future generations." If every individual, every parent, and every community, will act in the spirit of this sentiment, and after the example of this endowment, "then we may hope to see each generation sweep majestically on in an increased and increasing current, each living upon, and growing upon the granaries of the past, and heaping up resources for the future. Then will each succeeding generation more fully develop the true principles of life and action, which will hush the evil propensities of man, and lead him gently by the hand into the paths of virtue and wisdom."

At a meeting of the Town of Danvers, held on the 28th of June, 1852, the gift of Mr. Peabody was promptly accepted, and a Committee was appointed to establish and administer this noble charity, for the purposes, and on the conditions set forth by the donor.

On the 29th of September, 1854, the building erected out of the donation of Mr. Peabody, was formally consecrated as the PEABODY INSTITUTE, to the noble uses of knowledge and morality for which it was designed, by appropriate exercises; and, Hon. Rufus Choate, who commenced his brilliant professional career in Danvers, delivered an address on the occasion, to set forth those uses, and express the grateful appreciation of this public charity "in thoughts that breathe and words that burn."

You have come together to express anew your appreciation of the character and the objects of the giver of this splendid charity; to repeat and republish your grateful acceptance of it; and, to dedicate this commodious and beautiful structure to its faithful and permanent administration. You open to-day for Danvers,—its inhabitants of this time, and all its successions,—the Lyceum of knowledge and morality. Under this dedication it shall stand while Massachusetts shall stand. This edifice will crumble, certainly, to be replaced with another: this generation of the first recipients of the gift,—the excellent giver himself,—will soon pass away; but, while our social and civil system shall endure; while law shall be administered; while the sentiment of justice, gratitude, and honor, shall beat in one heart on your territory, the charity is immortal.

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*Mr. Proctor, now deceased, was the man in whose store, Mr. Peabody spent four years of his boyhood, and for whom he entertained the highest respect.

For every one among you it is set open equally. No fear that the religious opinions he holds sacred will be assailed, or the politics he cultivates insulted, will keep back any from his share of the diffusive good. Other places and other occasions you reserve for dissent and disputation, and struggle for mastery, and the sharp competitions of life. But, here shall be peace and reconciliation. Within these walls the knowledge and the morality, which are of no creed and no party; which are graceful and profitable for all alike, of every creed and every party; which are true and real to every mind, as mind, and from the nature of mind; and, to every conscience, as conscience, and from the nature of conscience; and, which are the same thing, therefore, in every brain and every heart,—this alone,—knowledge and morality, broad, free, identical as humanity itself,—is to be inculcated here.

Happy and privileged the community, beyond the measure of New England privilege even, for whom such high educational instrumentalities are thus munificently provided, and made perpetual! Happy, especially, if they shall rouse themselves to improve them to their utmost capacity,—if they shall feel that they are summoned by a new motive, and by an obligation unfelt before, to an unaccustomed effort to appropriate to their hearts and their reason all the countless good which is hidden in knowlege and a right life; an effort to become,—more than before,—wise; bright; thoughtful; ingenious; good; to attain to the highest degree of learning which is compatible with the practical system of things, of which they are a part; to feed the immortal, spiritual nature, with an ampler and higher nutrition; enriching memory with new facts, judgment with sounder thoughts, taste with more beautiful images, the moral sense with more of all things, whatsoever they are, lovely, honest, and of good report,—the reality of virtue, the desert of praise.

Happy, almost above all, the noble giver, whose heart is large enough to pay of the abundance which crowns his life,—to pay out of his single means,—the whole debt this generation owes the future. I honor and love him, not merely that his energy, sense, and integrity have raised him from a poor boy,—waiting in that shop yonder,—to be a guest, as Curran gracefully expressed it, at the table of princes; to spread a table for the entertainment of princes,—not merely because the brilliant professional career which has given him a position so commanding in the mercantile and social circles of the commercial capital of the world, has left him as completely American,—the heart as wholly untravelled,—as when he first stepped on the shore of England to seek his fortune, sighing to think that the ocean rolled between him and home; jealous of honor; wakeful to our interests; helping his country, not by swagger and vulgarity, but by recommending her credit; vindicating her title to be trusted on the exchange of nations; squandering himself in hospitalities to her citizens,—a man of deeds, not of words,—not for these merely I love and honor him; but, because his nature is affectionate and unsophisticated still; because his memory comes over so lovingly to this sweet Argos; to the school-room of his childhood; to the old shop and kind master, and the graves of his father and mother; and, because he has had the sagacity, and the character, to indulge these unextinguished affections in a gift,—not of vanity and ostentation,—but of supreme and durable utility. With how true and rational a satisfaction might he permit one part of the charitable rich man's epitaph to be written on his grave-stone: "What I spent, I had; what I kept, I lost; what I gave away, remains with me."

The speaker thus enunciates the educational character of the institution founded by the liberality of Mr. Peabody.

"I take it for granted that the declared wishes of Mr. Peabody will be considered as determining, quite peremptorily, the general mode of administering this fund. Better educational instrumentalities, indeed, no man's wisdom, in the circumstances, could have devised. Courses of lectures, then, and a library of good books, these are to form the means of the Lyceum; and, the problem is, in what way you can make the most of them.

It may seem a little exaggerated at its first statement, and, perhaps, alarming, but it will serve, at least, to introduce my more particular ideas, to say that the *true view for you to take of this large provision of mental means, and of your relations to it, is to regard yourselves as having become, by its bestowment, permanently the members of an institution which undertakes to teach you by lectures and a library.* Herein, exactly, is the peculiarity of your new privilege. You are no longer, as heretofore it has been with you,—merely to be indulged the opportunity of a few evenings in a year to listen, for the amusement of it, to half a dozen discourses of as many different speakers, on as many totally disconnected topics; treated, possibly, for ostentation, and adapted only to entertain; but, however treated, and whatever fit for, totally forgotten in an hour; preceded, followed up, and assisted, by no preparation and no effort of the hearer; giving no direction whatever to his thoughts or readings; separated from each other, even while the Lyceum season lasts, by a week of labor; devoted, even in its leisure moments, to trains of thought or snatches of reading wholly unauxiliar and irrelative; and, for nine months or ten months of the year, totally discontinued. Thanks to this munificence, you are come to the fruition of far other opportunities. *An institution of learning, in the justest sense of the term, is provided for you.* Lectures are to be delivered to you through a far larger portion of the year; a library, which will assuredly swell to thousands of volumes, is to be accumulated under your eye, from which you may derive the means of accompanying any lecturer on any subject from evening to evening; and, this system of provision is permanent, —henceforth part and parcel, through its corporate existence, of the civil identity and privilege of Danvers. You enter, therefore, to-day,—you may enter,—a new and important school; as durably such, as truly such,—having regard to differences of circumstantial details,—as the seminary at Andover; or the law school at Cambridge; or the College of Medicine at Philadelphia,—all of them schools, too, and all teaching by lectures and a library."

It does not fall within the scope of this article to follow the eloquent speaker in the development of the true idea of the public lecture, designed to impart knowledge; and of the manifold uses of books in mental culture, and the highest enjoyment to the man of labor as well as of leisure. From those portions of the address we shall enrich our pages by extracts hereafter. After a touching allusion to his own use and enjoyment of good books, Mr. Choate concludes as follows:—

"To these uses, and these enjoyments; to mental culture, and knowledge, and morality,—the guide, the grace, the solace of labor on all its fields, we dedicate this charity! May it bless you in all your successions; and, may the admirable giver survive to see that the debt which he recognizes to the future is completely discharged; survive to enjoy in the gratitude, and love, and honor of this generation, the honor, and love, and gratitude with which the latest will assuredly cherish his name, and partake and transmit his benefaction."

As an additional encouragement to the youth of Danvers to improve their privileges, Mr. Peabody has signified his intention to give the sum of two hundred dollars, annually, to be appropriated for the purchase of prizes for the meritorious pupils of the two High Schools, known as the Peabody and Holton Schools. In furtherance of this design, the School Committee of Danvers have had executed a beautifully designed medal, called the PEABODY MEDAL, to be awarded to the deserving members of the schools.

But the munificence of Mr. Peabody has not been restricted to the noble institution which will perpetuate his name, or to the schools where he was educated, or the town where he was born. It is yet too soon to speak of all his benefactions; and long may it be before those who follow him, will be called on to make up the record of his uses of great wealth acquired by commercial sagacity, probity, and diligence. When that record is written, it will be found that his liberal hand has bestowed largely to provide for the widow and orphan, bereaved by pestilence, and for the poor, rendered houseless by fire, in cities which he never visited. When the credit of his adopted state of Maryland was not properly protected in Europe, his princely interposition redeemed her bonds from dishonor. The Industry and Arts of his native land, will not forget his timely advances of many thousand dollars, that rescued from entire failure the American department of the London Exhibition. Science and humanity will unite in associating his name with that of Grinnell, as the generous patron of discovery in unexplored regions, and of search after the hardy navigator, whose fate had touched the heart of all Europe. And while he has contributed to rear in the capitol of his country, a monument to the memory of Washington, his large hearted patriotism has exalted in the city of his residence, the anniversary of American Independence from a national festival, to a fête of Liberty and Fraternity, which the friends of civil and religious freedom, whether born on American or English soil, may unite in celebrating.

NOTE.—The London Morning Journals, of the 5th of July, 1855, contained an extended notice "of an entertainment given by Mr. Peabody, as is his custom, on the 4th of July, the Anniversary of American Independence, to his countrymen sojourning in London. Among his two hundred guests were, his Excellency, Mr. Fillmore, late President of the United States, and several English gentlemen of distinction." Hon. Josiah Quincy, Jr., of Boston, like his ancestor bearing the same name, eighty years before, was there "to establish a personal intercourse with the friends of constitutional liberty on the English side of the water," and at the same time to express in the most felicitous manner, his own and his countrymen's pride, in the recollections and associations of the day. Sir J. Emerson Tennent, Vice President of the Board of Trade, responded eloquently to a toast expressive of a desire for a "perpetual friendship and alliance between the people of England and the United States," which he believed was the predominant feeling of his own countrymen. "We look to you to speed the torch of freedom, lit at our shrines, over your own continent, until its broad illumination shall flash across the Pacific, and penetrate the dark recesses of Asiatic despotisms."

"Take freedom, take thy radiant round,
When dimmed, revive,—when lost, return;
Till not a shrine on earth be found,
On which thy glories shall not burn."

The festivities were closed, with Mr. Fillmore proposing the health of Mr. Peabody—"our generous host,—who maintains on British soil, the characteristics of his country, and cherishes for her fond recollections, which he has munificently illustrated on this day of our national independence."

II. EDUCATION AMONG THE HEBREWS.

AN INTRODUCTORY SKETCH.

BY REV. MORRIS J. RAPHALL, PH. D.

The Hebrews are emphatically the *people of the book.* Education is to them like the air they breathe: without it they cease to exist. Not only has every Hebrew, like his Gentile competitor in the battle of life, to acquire that amount of instruction, without which he could not successfully carry on his profession or trade: but the minute and manifold observances enjoined by his religion, and the fact that his worship, private as well as public, is conducted in Hebrew, render it necessary that he should likewise obtain some knowledge of the language and literature of his forefathers.

According to the pious legends of the Rabbins, public schools existed before the deluge; and Adam was not only the first man but also the first schoolmaster, assisted in his labors by Enoch, and succeeded by Noah. After the deluge, Shem* established and presided over a public school, assisted by his great-grand-son Eber, among whose pupils the patriarchs Abraham and Jacob, are particularly mentioned.

Another tradition avers that during the bondage in Egypt, the tribe of Levi, although grievously oppressed like all Israel, remained exempt from hard labor, as the whole tribe devoted itself to study and education. That, consequently, this tribe—possessed of higher mental training than the others—disdained to join in the worship of the golden calf; and that from the same cause this tribe was qualified to assume the duties of ministers and teachers, which subsequently were entrusted to them.

The Pentateuch gives us no information as to the system of education which the practice of its precepts rendered necessary. The duty of parents to teach their children is repeatedly inculcated. The art of writing is assumed to be possessed by the priests (Numbers v. 23,) and also by the people generally, (Deuter: vi. 9, xi. 20, xxiv. 1, 3,) and it is remarkable that the only ornament on the high priests' mitre, consisted of a golden frontlet on which alphabetic characters were engraved. But the books of Moses nowhere speak of a class of men, or of any public institution, altogether devoted to teaching. It may be assumed that education was looked upon as a religious duty, and therefore entrusted to the priests and Levites. It is certain that in process of time these teachers neglected their duty to such a degree that Samuel found it necessary to introduce a new and enlarged system. He therefore founded the schools of the prophets open to all Israelites. Respecting the internal polity, and the system of education in these schools we know but little. We must, however, not suppose that the Hebrew word *Nabi*, "prophet," bore the same signification in the days of Samuel that it obtained at a later period of Scriptural history, viz., that of an "inspired predictor of future events"—such an inspired predictor in the days of Samuel was called *Ro-eh*, or *Hhoseh*, "a Seer," (1. Sam. ix. 9,) whereas the word *Nabi*, "prophet," is used in Genesis xx. 7, and in Isaiah ix. 15, to designate a "teacher;" in Exodus viii. 1, an "orator;" in Exod. xv. 20, and Judges iv. 4, a "poet," and in 1. Chronicles xxv, *passim*, a "composer of music." This fourfold meaning of the word *Nabi* tells us what functions the "prophets" trained in these schools were intended to discharge. They were to be "teachers," "public orators," "poets," and "composers of sacred music," and the system of education was arranged accordingly.

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* Scipio Sgambatti in his work "Archivorum Veteris Testamenti, seu de Scriptoribus Hebraicis," asserts that Shem was the author of a treatise on medicine, of which a manuscript in Hebrew was preserved in the library of the then (A. D. 1600) Elector of Bavaria!

These schools took root, spread over the land and exercised a marked influence on the minds of the Hebrews. Learned societies are spoken of as "the men of Hezekiah," (Proverbs xxv. 1,) and "the masters of assemblies," (Eccl. xii. 11,) which are supposed to have been connected with these schools. With the fall of the Hebrew monarchy, however, these schools were ruined, and shortly after the return from Babylon, they altogether disappear. As it had been in the early periods of the Israelitish commonwealth, the priests,*—who had returned from exile in greater numbers than the Levites—once more became the teachers of the nation, and once more sacrificed their duty to their interest, for which they are bitterly upbraided by the last of the Prophets, (Malachi ii, 1-12).

Ezra, though himself a priest, and "the men of the Great Assembly," over which he presided, again resorted to the plan of Samuel. Public schools of different degrees were everywhere established; the priests no longer remained *ex officio* sole instructors of the people, but were superseded by a new class of teachers, the "Sopherim," *grammateis* "scribes." Thenceforth the history of education among the Jews stands clearly before us. Each town in Judea, containing a certain number of inhabitants, was bound to maintain a primary school, the *Hhasan* "precentor," of the Synagogue, in most instances, being the teacher. Seminaries of a higher grade were presided over by *Sopherim* "scribes," and a sufficient annual income was assigned for their support. The portion of public revenue set apart for this purpose, though frequently diverted, was as frequently restored to the schools. In the countries between the rivers Euphrates and Tigris, where the Jewish population was more numerous and wealthy than in Judea proper, and in Egypt, chiefly at Alexandria, the schools were flourishing; and that they were well conducted is proved by the fact that within fifty years from the time the Jews first came in contact with the Greek language, they were able to translate the Pentateuch, from the Hebrew, which had ceased to be their vernacular tongue into the Greek,* with which they had so lately become acquainted.

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* According to Ezra (ii. 36–42), the number of priests that returned, was 4279, while of Levites there only were 341.

With the fall of Jerusalem, (A. D. 70,) the schools in Judea were, for a time, ruined. One college, at Jamnia, had, however, been spared by the Romans, and became the center of instruction to the Jews, under the altered circumstances of their religious and civil polity. When this college, and also the schools in Egypt, were destroyed during the wars against Trajan and Hadrian, (A. D. 116 till 134,) a new seat of learning arose at Tiberias, near the lake of that name. The presidents of this school were styled *Nassi*, "prince," recognized by the Roman authorities as Patriarchs, and exercised great sway over the Jews throughout the Roman empire. Under their auspices, the important compilation of the Jewish canon law, called "Mishna," was formed about A. D. 200; but their dignity and usefulness gradually decayed, owing partly to the degeneracy of the hereditary Patriarchs, and partly to the hostility of the Christian church. The school was closed about the year 439, when its declining fame had long been eclipsed by the Babylonian schools of Sura, Pumbeditha and Nahardea, near the Euphrates. These great collegiate institutions possessed vast endowments, and were visited by Jewish students from all parts of the world. The great compilation of the Babylon Talmud in twelve large folio volumes, the work of sixty years, attests the zeal and extensive erudition of the *Rishi Methibta*, "chiefs of the schools," who under the *Rish Gelutha*, "prince of captivity," taught in these academical republics. They continued to flourish till the year 1048, when the poverty-striken Caliphs seized on the endowments, and shut up the schools.

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* The *Septuagint*, or translation of the Seventy, was undertaken by Judeans, about the year 280, B. C. E.

Some sixty years before this catastrophe, the Jews residing on the Spanish peninsula, under the dominion of the Moors, had begun to found schools on an enlarged principle, in which the positive sciences, and the philosophy of Arestotle were taught, as well as the Talmud, and which exercised great influence on science and learning, throughout Europe, during the darkest period of the middle ages. These schools continued to flourish till the expulsion of the Jews from Spain, by Ferdinand and Isabella, A. D. 1492.

Contemporary with these Spanish schools, but conducted on more narrow principles, were the Talmudic schools, from which all other studies remained excluded. Their principal seat was in France. From thence they spread first over Germany, and then over Poland, where they still flourish, and from whence the Talmud schools throughout the East have been revived.

The Spanish schools, after their expulsion, sought shelter in Italy and the Turkish empire. In this last-named country, however, they have been absorbed by the Talmudists, who, together with the Cabbalists, still reign supreme. In Italy, and subsequently in Holland, the Spanish schools remained active, until they gradually became amalgamated with the modern system which, since the beginning of the present century, prevails throughout the West. (Germany, Italy, France.) In Great Britain, and in the United States, Jewish education is still in its infancy.

An examination of Education among the Hebrews thus presents us six post-Biblical developments:

1. The Schools of the Sopherim.
2. " " " Mishna.
3. " " " Talmud.
4. " Scientific Talmudic schools of Spain.
5. " rigidly Talmudic schools of old France, transplanted to Poland and the East.
6. The modern schools of Germany, Italy, and France.

II. PROGRESS OF EDUCATIONAL DEVELOPMENT IN EUROPE.*

BY HENRY P. TAPPAN, D.D., LL.D.,

Chancellor of the University of Michigan.

With some solitary thinker, most probably, the circle of human thought began. The mystery and the beauty of the world led to philosophic inquiry, and creative art. The conceptions and theories started, the truths gained, the work of useful improvement, or, of beautiful art attempted, attracted others as if a new oracle had become vocal. Institutions to make scholars and artists there were not; but scholars and artists had first to grow from the individual teacher; and then, as they multiplied, they became associated in schools and institutions. These, by a concentration of mind and means, multiplied scholars and artists more rapidly, gave them greater perfection by methodical culture and the influence of example, and spread wide the scholarly and artistic spirit.

There are three stages of learned and artistic association to be noticed: The primal, or ancient; the middle, or ecclesiastical and scholastic; and the modern. The first embraces a period reaching down to the time of the establishment of the religious houses of Christianity; the second embraces the middle ages down to the reformation; and the third begins with the reformation. Each stage prepared the way for the succeeding; and each has its marked and peculiar characteristics.

The primal stage is that where the individual thinker, or artist, becomes the centre of a school. Thoughts of God—the great first cause—of the constitution of the universe, of human duty and destiny stir in some great original mind, and he speaks out his thoughts wherever he can gain a hearing—in the public walks and groves, in the market place, in the houses of friends, in familiar intercourse, or on festal occasions. Thus Socrates and the Stagyrite taught. Those who habitually consorted with them became disciples, in turn to become teachers, or to carry out the great principles with which they became imbued, into public life. School, which now generally means an institution of learning, derived from the Greek Σχολη, that is, leisure or time removed from public or private business, was applied to designate the teacher and his disciples, and finally his peculiar doctrines. The bustle, interests, and employments of ordinary life were laid aside for a simple and pure devotion to thought, for inquiries after the True, the Good, and the Beautiful. Thus sprung up all the great schools of ancient philosophy; thus were men taught wisdom; thus was human culture carried on; thus were laid the foundations of all knowledge and all education. It was a spontaneous association of great minds aspiring after the highest objects that can be proposed to man. The same individuality marks the poets, the artists, the historians, and the orators of antiquity. Each formed himself by individual effort, under the inspirations of his own genius, availing himself of the knowledges which were accessible, studying the examples which were presented, seizing the occasions which were offered, moulding language, and developing forms of beauty with an originality which could belong only to a period when the human mind, awakening to a consciousness of its powers under the great eye of nature, instead of finding authorities in the past, was driven in upon itself and created authorities for the future, and like a discoverer in regions untrodden before, wandered freely abroad in joyful expectation of wonders of truth and beauty.

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* Portion of a Discourse delivered before the American Association for the Advancement of Education, in New York, on the 28th of August, 1855.

In the latter period of Greece, and during the classic age of Rome, the Schools of Philosophy, and particularly the Schools of the Rhetoricians exhibit some approximation to the form of institutions of learning, with a formula of education; but still the individual teacher created his own school and formed its centre. Cicero studied Plato and Demosthenes, but he resorted to no university; he was taught by Roscius, but in no public gymnasium. Virgil imitated the Iliad, but he caught the epic fire, and gained the majesty and grace of the hexameter from the discipline of no Homeric Institute. In forming an estimate of the learned men and artists of antiquity, we must think of original genius, self-made men, individual efforts, independent thoughts and aims, and the voluntary association of men naturally influencing each other by conversation, correspondence, daily example, and the courtesies of social life. We must forget our modern ideas of educational institutions established by the State, or sustained by patronage and power. In that primal stage, education could appear in no other form, for the idea of education was then in process of development, and the materials of education were accumulating.

And as there were not, properly speaking, institutions of learning, so there was not any system of public and general education. The people heard poems recited by strolling rhapsodists, and by actors in the theatre; they heard histories read at the public games; they heard the orators in the public assemblies; they might listen to the discourse of philosophers in the public places; and they everywhere contemplated proportion, majesty, and beauty, in the temples and statues which adorned their cities and the seats of religious worship. It was an education through the ear and the eye; through national customs, and religious ceremonies; through legend and story; through monuments of national glory, and the proud associations of places connected with heroic deeds. It was a moulding of the character through sentiments, emotions, and passion, infused and quickened by the objects and incidents of their daily life, where the objects and incidents were created and ordered by the genius, taste, and activity of the presiding minds which dwelt in a higher sphere. Wisdom, beauty, poetry, and music dwelt first of all upon Olympus, thence they descended to dwell at Delphi, and upon the Acropolis: their priests and representatives were a god-like order of men, and, through them, the whole people felt the influence of the heavenly visitation. Such was the beauty, poetry, and heroism of the life of the Greeks, that their mythology seems almost to be established by the facts of their history, so naturally consequential was the one upon the other.

The cultivated class among the Romans assimilated to the cultivated class among the Greeks, and their education proceeded by the same means; but the Roman people never imbibed the Athenian spirit of letters and art, and never reached the Athenian polish and grace. The shadow of Olympus did not stretch itself to the banks of the Tiber. But the Roman, no less than the Athenian, formed a strong national character through legend and story, through the associations of places and proud historical recollections, and through the influence of political institutions.

Education, among the ancients, viewed as a process, was varied, undetermined, independent, often accidental, and strongly individual; and, in its diffusion, took the ease and freedom of social life instead of that cloistered seclusion and disciplinary movement which are so familiar to us. As a result, it presents us men of the highest powers under a noble culture; a civilized people wonderful for thought, imagination, and taste, or a people of stern and lofty nationalism; works in literature and art, which, unsurpassed, if not unequalled, have long since been acknowledged by mankind as models which can never lose their authority, and can never cease to instruct; many important truths in pure science, and valuable researches in physics; and speculations in philosophy, immortal as thought itself.

These solitary thinkers, with their few disciples—these poets, historians, and orators in the simple strength of their genius—these artists, working out the ideal conceptions of their own minds, were the only educators of the day in which they lived, and they have ever remained the educators of mankind. What would antiquity be without these but a barren waste? We would have a spectacle of the rise and fall of dynasties, the march of armies, the tumult of battle, and the glory of conquest: we might have also useful arts, and commerce, and wealth, leading on a barbaric magnificence. But now that they have passed away, what would they be to us but a story, or a dream—a Babylon, a Tyre, a Carthage, to fill a page of history, but leaving nothing behind to inspire, to elevate, to improve mankind? The very wars of the classic nations have an interest beyond all others, because they exhibit the struggles of civilization against barbarism: they are the heroic defending the true, the good, and the beautiful. The labors of Genius have given immortality to these nations. The poetry, the philosophy, the eloquence, the histories, the splendid works of art still survive. The memory and influence of these nations are imperishable, because they continue to teach us great truths, to hold up before us the most perfect models of literary production and of the beautiful arts, and to inspire us with enthusiasm for intellectual culture and refinement.

The Roman Empire, with its majesty and power, was an impressive spectacle—so was the Persian—so is the Chinese and the Russian. But the Dictators, Triumvirs, and Cæsars of the Ancient Empire, viewed alone, have for us little more interest than the Emperors and Czars of the modern dynasties. Greece perpetuated in Rome—Roman legislation, literature, art, and eloquence—Roman civilization and culture draw forever the heart of humanity towards the city of the seven hills.

And thus, in contemplating this primal period, we are taught at once the great truth, that the life of nations no less than the life of individuals, is important to the world, and survives in the memory and veneration of after times, only as connected with the progress of knowledge, the development of thought, the cultivation of taste, improvement in arts, and, in general, with the advancement of the spiritual interests of man.

In proceeding to the second stage of learned association and educational development, it is necessary to remark that, in a general and rapid review like the present, it is not possible to mark with exactness the transition from one stage to the other. Indeed, in the nature of the case, it must have been gradual, extending through centuries, appearing under different phases, and with more or less distinctness.

First of all, let the distinctive characteristics of the two stages be clearly borne in mind:—the first presents the independent teacher going forth to utter what he conceived to be truths, as he best could, under no legal authority, and connected with no incorporated society or institution. The philosopher and the poet were equally free, and impelled alike by the simple power of original thought and the inspiration of genius. The Greek, particularly, had every thing within himself. His own language, the most perfect, perhaps, ever used by man, was sufficient for him, and he cultivated no other; and whatever hints he may have received from other nations, through some travelling philosopher, he passed so far beyond them, and exhibited such independence in his thinking, that they are scarcely to be regarded as elements of his system. Such hints have little more relation to Grecian philosophy than the letters of Cadmus to the dramas of Æschylus.

In the second stage, there appears the necessity of referring to the past, and becoming acquainted with what the human mind had already successfully achieved. There were cultivated languages to be learned, master works in literature and art to be studied, systems of philosophy to be examined, and scientific truths to be acquired. The Roman could not be as original as the Greek, and had first to become a scholar ere he could be a philosopher, poet, or orator.

The classic period of Rome added still more to the mass of philosophical and literary material, and imposed upon subsequent ages the necessity of a still wider erudition. And when the Latin itself ceased to be a living tongue, or existed only in a degenerated and corrupted form, two classical languages instead of one had to be acquired as the necessary portals to those treasures of thought and beauty which the genius of the ancients had created, and which were henceforth to lead the way of profound and elegant culture.

New and powerful elements of intellectual development had also been introduced with the Christian religion. The great author of this religion taught after the manner of the ancient philosophers, but with a perfection and power which surpassed them all. He taught everywhere—in the temple and in the synagogue, in the highways and in the open fields, or in private dwellings amid the informality of social converse. He taught with the freest method, and used the most familiar illustrations, and yet he taught such doctrines as had never been heard before. He organized no schools; he simply taught. Mightier than the Sibyls, while, like them, he seemed to scatter his truths to the winds, he securely planted them in human hearts, and nursed a power destined to overthrow the old religions, revolutionize social organization, and regenerate the world. With his Apostles, organization began, and the Church was instituted. At first, simple associations, scattered, and more or less independent, appeared. The organization itself seemed a spontaneous growth from the sacred affinities created by a common faith and hope, common dangers and exigencies, and common duties. From this unostentatious beginning arose a vast ecclesiastical system, with a mighty hierarchy, which spread itself over the Roman Empire, and finally took possession of the throne of the Cæsars.

With Christianity, there grew up a new, peculiar, and extensive literature. There were first the sacred writings; then, the epistles, homilies, polemics, and theologies of the fathers. Theology took a two-fold form—the orthodox and the heretical. Both allied themselves to philosophy; the first basing itself upon the sacred writings, called in philosophy as an adjunct authority, and to aid in interpretation and exposition: the second, basing itself upon some favorite philosophy, sought to mould the sacred writings to its dogmas. Christianity, a doctrine of God, of duty, and of immortality, swept over the whole field of philosophy, and connected itself with the profoundest and most momentous questions that can agitate the human soul.

The study of languages, antiquities, philosophy, and rhetoric, seemed involved in the inculcation and progress of this religion. It was, in truth, a great system of teaching, where each society, or church, became a school, and the priest, or minister, a public instructor. And, as copies of the sacred writings were multiplied, readers would naturally increase, and the value of the art of reading be correspondingly enhanced. That education, therefore, should, under Christianity, be diffused among the people, and take the form of institutions, and adopt a determined method, was an inevitable result. Could this religion have preserved its original simplicity and purity, and remained disconnected with pride, ambition, and power, it might, perhaps, in its natural quiet movement, have given birth to a system of universal education, and advanced all sciences and arts, at the same time that it was accomplishing the spiritual regeneration of society. But even as actually developed, we shall see how close and important was its connection with the advancement of knowledge and the rise of institutions of learning.

For centuries before the fall of the Roman Empire, luxury had produced effeminacy with all its attendant vices. The decay of national spirit, of virtue and manliness has ever marked the deterioration of letters and the arts; and thus the fall of the empire was preceded by the disappearance of all that had signalized and graced the Augustan age. But this was the very period during which the patristic literature had been accumulating. And when the barbarians had finally completed their conquest, followed by the almost total loss of classical learning, although the church was not exempt from the prevailing ignorance, still the Latin language was preserved in her canons and liturgies, and in the Vulgate, so that whatever of learning remained, was found for the most part in the Church.

The leading Ecclesiastics, indeed, cherished the strongest prejudices against secular learning. Gregory I., the founder of papal supremacy, directed all his authority against it, and is even reported to have committed to the flames a library of heathen authors. In some monastic foundations, the perusal of the works of heathen authors was forbidden. Nevertheless, the tenacious adherence of the clergy to the Latin liturgy, and to the Vulgate translation of the Scriptures, and their implicit submission to the Fathers, in preserving the Latin language, preserved the very records of that literature which they neglected and contemned. Another circumstance, too, and that, perhaps, purely accidental, contributed still more to the preservation of classical literature. The order of St. Benedict, so widely diffused through the Church, were enjoined by their founder to read, copy, and collect books, without any specification as to their character, probably presuming that they would be religious books. They obeyed the injunction literally, and classical manuscripts were collected, and copies multiplied.

It thus came to pass that monastic institutions became the great conservatories of books, and the means of multiplying them. It must not be forgotten, too, however we may be opposed to the institution of monasticism, that during centuries of intellectual darkness and barbarism, when war formed the chief employment of men who sought for distinction, the monasteries became the quiet retreats of the gentler and more elevated spirits who wished to escape from the violence of the world, and to engage in the genial pursuits of literature and philosophy. The scholar became of necessity an ecclesiastic. We cannot be surprised, therefore, that schools of learning sprung up under the shadow of convents and cathedrals. One feature distinguished the Church even in the dark ages—let it be remembered to its honor—which peculiarly adapted it to foster the interests of learning, and to raise up learned men; in awarding its benefits, in bestowing its honors, it paid no respect to rank: to it, the noble and the peasant were undistinguished; and from the lowest grades of society might arise the successor of St. Peter, to set his foot upon the neck of Kings and Emperors. Here, then, was opened to the people the possibility of social elevation and power, and here simple genius and learning might hope to escape from obscurity, and gain the loftiest stations.

There is but one parallel case. In the Italian cities, the municipal judges were chosen from among the body of the citizens; and so rapid was the rotation of office, that every citizen might hope in his turn to participate in the government. Now, it is remarkable that the study of Roman Jurisprudence was revived to such a degree at Bologna, that a famous University sprang up, and the only one that can dispute with the Universities of Oxford and Paris the claim to the earliest antiquity. In both instances, it was the removal of the interdicts which everywhere else debarred the people from all hope of advancement, that quickened the ambition of learning. Nature hath ever her own noblemen whom she will set forward, unless arbitrary institutions prevent.

The first schools, after the barbarians had completed the overthrow of the Empire and of all imperial institutions, were merely of an elementary character, and were established by certain Bishops and Abbots, in the sixth century. These conventual and cathedral schools were probably, at first, designed for neophytes, to fit them for engaging with propriety in the church service. Their benefits, however, were not confined to these. To what extent these schools were multiplied, it is impossible to determine with exactness. They assumed a higher character under the direction of eminent men, such as Theodore, Bede, and Alcuin. Charlemagne invited the latter from England, in connection with Clement of Ireland, and Theodolf of Germany, to establish or restore the cathedral and conventual schools in France. The division of sciences which obtained in them is remarkable. The first was the *Trivium*, comprising grammar, logic, and rhetoric. The second was the *Quadrivium*, comprising music, arithmetic, geometry, and astronomy. Few studied the *Quadrivium* at all; and the instances were rare where the *Trivium* was mastered. The theological aspect which was given even to these studies, is evident from the fact that the study of music was confined to chanting the church service, and astronomy to the calculation of Easter.

Jurisprudence and theology were the two governing powers of educational development, which gave rise to Universities. The latter, however, was the chief, and is mainly to be considered.

Hitherto, two methods of theological discussion had obtained. During the first six centuries, we have the method of the fathers—that of interpreting the Scriptures by their own ability and skill, and by the decisions and traditions of the Church, as these accumulated from century to century. In the eighth century, or, perhaps, earlier, the Fathers were themselves received as authority conjointly with the Scriptures and the decisions of the Church.

But the establishment of cathedral and conventual schools could not but advance human thought. Scholars of more or less eminence were found scattered through the middle ages. Scholars were engaged in founding and perfecting these schools, and gave in them an impulse to study. A taste for philosophical speculation would naturally spring up, and the very study of the Fathers would tend to foster it. The logic of Augustine was in use; this was followed by the logic and metaphysics of Aristotle, although at first opposed by Popes and Councils.

Questions in theology naturally ally themselves to metaphysics; and polemics as naturally call in the aid of dialectics. Lanfranc and Anselm, successively Archbishops of Canterbury, made use of metaphysical ideas as well as of Aristotelian dialectics, in their controversy with Berenger respecting transubstantiation. Now arose a new method of theological discussion; it was no longer a simple appeal to the Scriptures, nor an appeal to the Scriptures, the Fathers, and the decisions and traditions of the Church conjointly. It became now an appeal to Reason also. And yet it was not an independent appeal; but the received dogmas remaining unquestioned, Reason was bent to expound and fortify them. "The principle of the Schoolmen, in their investigations, was the expanding, developing, and, if possible, illustrating and clearing from objection the doctrines of natural and revealed religion, in a dialectical method, and by dint of the subtlest reason. The questions which we deem altogether metaphysical, such as that concerning universal ideas, became theological in their hands."

The founder of the Schoolmen and of the scholastic system, so called from *Scholæ*—the schools which Charlemagne opened, is generally received to be Roscelin, who flourished at the close of the 11th century. He revived the question respecting universal ideas, and with him commenced the celebrated controversy between the Nominalists and Realists. Three names figure at the beginning of this controversy—Roscelin, the Nominalist, William of Champeaux, the Realist, and Abelard, who endeavored to occupy a middle ground. The intense interest awakened by this controversy, and the multitudes who waited upon the discussions, can be explained only by the fact that a new field was opened to the human intellect and the authority of human reason brought in. It was assumed, indeed, that reason should not transcend the dogmas of faith, and there was always professedly a submission of the former to the latter: but the charge brought against the nominalists of subverting the doctrine of the Trinity by reducing it to a mere nominal unity of persons; and the counter-charge brought against the realists, of a tendency to Atheism, prove that there was a freedom of thought and language indulged in by both parties which could not be restrained within the limits of theological precision. The controversy was carried on until the fifteenth century, when, at the Revival of Letters, it gave place to objects and themes more closely connected with the progress of knowledge, and the improvement of the world. Two things were gained, however, of the utmost importance, and which co-worked to the same end: First, the human intellect was awakened, and a taste for scholarship widely diffused. Secondly, Universities were established.

William of Champeaux opened a School of Logic, in Paris, in 1109. The dialectic skill and the graceful eloquence of Abelard, drew together thousands of eager disciples. In the School of William of Champeaux, was the germ of the University of Paris, for with it commenced a regular succession of teachers. The lectures of Abelard, both when delivered in Paris and at the Paraclete, from the enthusiasm they awakened, and the numbers they collected, were a dazzling exhibition of the power of oral teaching in even the most abstruse subjects. In both there was something like a return to the method of the old Grecian Schools. There was this difference, however: The ancient philosophers belonged to no order, and taught with the utmost freedom. Champeaux and Abelard belonged to the Church, and were presumed never to transcend its dogmas. Indeed, it would not have been lawful for them to teach a pure science, that is, a science uncontrolled by theological ends and aims.

From the time of Champeaux and Abelard, schools multiplied in Paris. The scholastic discussions seemed to have created a sort of dialectic phrenzy. About the middle of the twelfth century, the influx of scholars into Paris was so great that they were, somewhat extravagantly, indeed, said to outnumber the citizens. Philip Augustus was led, sometime after this, to enlarge the boundaries of the city to afford them accommodations. Students flocked from foreign countries. The Faculty of Arts in Paris was divided into four nations: France, Picardy, Normandy, and England. In 1453, there were twenty-five thousand students in Paris. Universities multiplied also in other countries. Paris was distinguished for Scholastic Theology; Bologna for Jurisprudence; Salerno for Medicine. Ten thousand students resorted to Bologna. At Oxford, in the time of Henry III., the number of students was reckoned also by thousands.

Universities became distinct corporations by Royal Charters, and the Holy See threw its protection around them.

But what was the peculiar organization of these institutions? They differed from the Greek Schools in that they were a collection of teachers forming one incorporated society. They differed from the Cathedral and Conventual Schools, in that these were elementary and isolated, while the Universities aimed at the highest developments of knowledge, and were associations for the purposes of learning, embracing multitudes.

The teachers were indifferently called masters, doctors, and regents. The first name indicated that they had compassed the arts, and thence become Masters of Arts; the second, that they were qualified to teach philosophy; the third, that they had authority to direct education.

The arts comprised the Trivium and Quadrivium, which included together seven branches—Grammar, Logic, Rhetoric, Music, Arithmetic, Geometry, and Astronomy. Philosophy was divided into three branches, and thence called the three philosophies, namely, Theology, Law, and Medicine. A particular university, however, as we have seen, cultivated frequently, in an especial degree, only one of these philosophies.

According to the statutes of Oxford, ratified by Archbishop Laud, there were four faculties in which the University furnished education and granted degrees—Arts, Theology, Civil Law, and Medicine.

Four years attendance on the lectures of the first faculty was required to qualify for the degree of Bachelor of Arts; and seven years for the degree of Master of Arts.

To commence the course in the faculty of Theology, a mastership in Arts was a pre-requisite. Seven years attendance on the lectures qualified for the degree of Bachelor of Divinity, and four more years for the degree of Doctor. In the faculty of Civil Law, a mastership in Arts was not a pre-requisite: but the Master obtained the Bachelor's degree in Law in three years, and the Doctor's in seven; while the simple student was required to attend five years for the first, and ten for the second.

In Medicine, a mastership in Arts was a pre-requisite: and three years attendance on the lectures qualified for a Bachelor's degree in Medicine, and seven for a Doctor's.

Degrees were also granted in particular branches, as in Logic and Rhetoric. In Music, a separate degree is given even at the present day.

The branches embraced by the Arts were multiplied as knowledge advanced. Hence, in the time of Laud, Greek, Natural Philosophy, Metaphysics, Moral Philosophy, History, and Hebrew are specified in addition to the seven arts before mentioned.

In the original constitution of Paris and Oxford, the University was taught and governed by the graduates at large—all the graduates were teachers. Graduation was nothing more nor less than a formal reception into the body of Teachers comprising the University Faculties.

The Bachelor was an imperfect graduate admitted to exercise the vocation of teacher partially for the sake of improvement. Hence, he was said *incipere*, to commence the vocation; and the commencement ceremony was his induction into office.

The Master, or perfect graduate, alone could *regere*—govern or be a Regent. At first the teachers, or masters, received fees from their pupils. Afterwards, to certain masters, salaries were appointed, and these gave lectures gratuitously. All graduates were obligated to teach during a certain term, and privileged to teach perpetually, also; but their number became so great that accommodations could not be provided for all: nor were the services of all necessary. The term of regency was therefore often abbreviated, and even dispensed with altogether: but the University could compel the services of the graduates, whenever it became necessary to increase the number of teachers. The salaried teachers, too, would naturally take precedence; and these, together with others whom natural inclination and peculiar circumstances led to select the vocation of a teacher, formed a permanent body, who in time were called *Professors*, simply from the fact that they professed, or addicted themselves to certain branches of instruction. Thus Professor, again, became identical with Master, Doctor, and Regent, in designating a certain office. In time the number of professors was limited by statute, and when others besides the regular professors were allowed to teach, their powers and privileges were of a secondary grade.

The Cathedral and Conventual Schools still remained, and other schools of a similar grade came to be established privately, or by endowment. All these were preparatory to the University. The University, we perceive, was from the very beginning an association of learned men, whose great object was the advancement of all knowledge, and of the highest forms of education. Like the schools of the ancients, they came up spontaneously, and were the work of individuals, and not of the State. Like them, too, they gave instruction orally; and the living teacher communicated to his pupils his own original researches and conceptions expressed with the force and freedom of his own style and manner. They were therefore the legitimate successors of the former, and afford a remarkable proof how the laws which govern the development of the human mind and of society preserve their identity through the sweep of ages. The respects in which they differed from the ancient schools were equally legitimate. They became a compact association of schools, because, science and literature, now developed into branches, existing in multiform works, assuming fixed principles, and represented by acknowledged standards, constituted a defined basis, on which association was possible. The same causes, also, led them to common methods and processes, as educational institutions.

After Universities had come into existence, they received charters from the State, and were placed under the protection of both State and Church; but they ever maintained and exercised, like other corporations, their own rights and powers. They elected their own officers, and adopted their own regulations, as institutions in themselves competent to discharge the great duties they had undertaken. They were not the work of sciolists and empirics. Created by great men, they have ever multiplied scholars, and been the fountains of letters and science, and of modern civilization.

Popular education could not be the starting point of education, for the ignorant masses are of necessity incompetent to plan and adopt measures for their own improvement. Individuals elevated above their age and the people around them, by superior genius, and a peculiar inspiration of thought, called out by circumstances sometimes extraordinary, and often accidental, took the lead. Homer will always remain a mystery; and yet Greek art, letters and civilization must be referred back to his immortal work as their inception. Socrates is a miracle of humanity, and stands alone; but he is the acknowledged father of an undying philosophy. Bacon was the only man to write the Instauration of the Sciences, and the Novum Organum. Christianity itself—the divine religion, made its advent in the solitary Jesus of Nazareth.

From the solitary poet, philosopher and reformer, proceeds the quickening and regenerating truth, first of all, to be received by the few. Then by association the truth gains power, is widely disseminated, and, finally, permeates the masses of society. Such is the progress of knowledge and education. The first period shows us the solitary gaining the few. The second period shows us the beginning of association preparatory to the universal diffusion of knowledge. The third period is that in which association will be perfected, and the universal diffusion of knowledge take place. In universities we have the association which in the end creates common schools, or schools for the people.

In our country, when attention is directed to the higher institutions of learning, the idea and title of a college always come before us. The title *university* is sometimes used, and not unfrequently is applied where there is not even a fully developed college; but a University, properly speaking, as it does not exist among us, so generally no adequate conception is formed of it; and we are prone to speak of colleges as if all our wants of high and perfect education are met by them alone. But colleges originally were not institutions of learning at all, and are wholly unessential to a university. Their origin was simply as follows: The thousands of students who flocked to the great universities of Europe were accommodated with board and lodging in the halls, inns, and chambers; while the public lectures were delivered at first at the private rooms of the professors, and afterwards in buildings appropriated to that purpose. Certain streets contained these buildings: Thus, in Oxford, in School street, there were forty buildings, containing each from four to sixteen class rooms: In Paris the four nations of the Faculty of Arts resorted to the Rue de la Fuoarre. A scarcity of lodgings arising from the great influx of students, the exorbitant demands for rent consequent upon this, as well as the vices to which students were exposed in large cities, led benevolent and pious individuals to establish colleges where board and lodging were furnished to poor students, and a religious supervision and discipline instituted for the preservation of their morals. Colleges were therefore merely accessories to the universities.

In Italy, colleges never advanced beyond this. In Germany, they advanced very little, and never sufficiently to modify the system of education. Here, too, they have entirely disappeared, the name *Bursch*—given now in common to the students, from the title *Bursar*, originally appropriated to those who inhabited collegiate houses—being the only memorial of them remaining.

In Paris, Regents taken from the University schools were occasionally appointed to lecture in the colleges. This practice in time became so general, that the public rooms were deserted for the college halls. The Theological Faculty confined their lectures almost wholly to the College of the Sorbonne, so that the Sorbonne and the Theological Faculty became convertible titles. In the fifteenth century, the faculty of arts was distributed through eighteen colleges. In the colleges of Paris, however, the faculties of the University always retained the ascendancy, and the University, instead of being superseded, was only divided into parts. Napoleon really restored the integrity of the University. The Sorbonne still remains, but is occupied by the four faculties of Science, Letters, Law, and Medicine. The College of France still remains, but in its courses and appointments is absorbed in the great university system.

In England, the colleges are eleemosynary lay corporations, "wholly subject to the laws, statutes and ordinances which the founder makes, and to the visitors whom he appoints." The College "consists of a head, called by the various names of Provost, Master, Rector, Principal, or Warden, and of a body of Fellows, and generally of Scholars, also, besides various officers or servants, according to the peculiar nature of the foundation." The Fellows are elected generally from the graduates of the college. They are elected for life, if they remain unmarried, or until they accept some other appointment inconsistent with the terms of the foundation. Rooms are assigned them in the college, together with board at the commons. They receive also a stipend varying from thirty pounds or less, to two hundred and fifty pounds, and upwards. No duties appear to be positively assigned them, but as they generally belong to the church, it is presumed, if not intended, that they shall addict themselves to theology. The colleges of England, like those of the continent, were originally "unessential accessories" of the Universities. The Universities existed before they were founded—the Universities must have continued to exist, had the colleges afterwards been abolished. In England, however, a portentous change came over the universities through the influence of the colleges. The result is, that at the present day, the universities exist almost wholly in name, and scarcely exercise any function beyond that of conferring degrees. The instruction has gone into the hands of the colleges, and is conducted by the fellows, while the duties of the professors are nominal. The Universities have, therefore, really retrograded to the state from which they had centuries before emerged, and hence have become again a collection of Cathedral and Conventual Schools. Formerly, they were taught by eminent professors with the freedom and originality of public lectures. Now, they are taught like grammar Schools, by tutors who are often juvenile, who have been elected by favoritism or by chance, and who have generally achieved no distinction, and are unknown to the world of Science and Letters. Hence the English Universities have remained stationary; while continental Universities have reached a higher development, and have entered upon a new and more glorious era of academical existence.

Universities, we have seen, were an advance upon the ancient Schools, in that, they were compact associations of the learned for the two great objects of promoting knowledge, and of determining the method and carrying on the work of Education. In form and aims, they were complete. Hence, they can never be superseded. But we come now to a third period, where begins what we may call the culminating stage of learned association and Educational development.

Universities, we say, as to their form and aims, were complete; but they labored under manifold incumbrances. The spirit of the ancient Schools was more free, pure, elastic and productive than that of the Universities, although they had not reached the proper forms, nor arrived at the conception of universal Education. A union of the two was necessary to a new progress. It was necessary that philosophy should be disenthralled from the Scholasticism; that thought and investigation should be disenthralled from ecclesiastical prescription; and that Scientific method should be disenthralled from the *dicta* of authority, and the true method determined in the spirit of independence.

Three centuries were appropriated to this work, the fifteenth, sixteenth and seventeenth, which we call collectively, the period of the Reformation, although the Reformation, strictly speaking, occurred in the sixteenth. But the fifteenth was preparatory to the sixteenth, and the seventeenth was the continuation of the preceding century—the carrying out of its spirit.

The taking of Constantinople was the great event of the fifteenth century. This drove the Greek Literati into Europe. They brought with them the Greek language, Greek art, literature and philosophy. The cloistered scholastics of Europe were surprised and fascinated by beauty of form, beauty of poetic conception, imagery and verse, and by the various free and brilliant philosophies of the classic land and the classic age. The dry subtleties of Scholasticism could not abide a comparison with the Socratic dialogues; and the Aristotle of the Schools, in his theological dress, was put to shame and banished as an impostor by the Aristotle who came fresh from his native clime, and spoke his native tongue. And thus Scholasticism disappeared never to return; and Greek philosophy, multifarious and confused, indeed, became, for a time, the universal enchantment.

No less signal, in the sixteenth century, was the destruction of ecclesiastical prescription by Luther, the man of the Reformation. The authority of truth and of God supplanted the authority of the Church.

In Bacon and Descartes, the sixteenth and seventeenth centuries are united. Leibnitz and Locke belong to the seventeenth. Four illustrious names are these. With them, was born the spirit of intellectual independence. They cover the whole field of philosophy. Bacon and Locke were of the sensualistic School; Descartes, of the Idealistic; and Leibnitz attempted to harmonize the two. But they all agreed in rebelling against authority, in proclaiming freedom of thought, and in seeking a basis for science in fact and demonstrated truth alone. The Novum Organum of Bacon, particularly, is regarded as introducing that new era of scientific investigation, whose splendid results we are daily witnessing.

It was inevitable that this threefold disenthralment should exert an influence upon the Educational System. It was just what was required to perfect it. The progress of knowledge and education exert upon each other a reciprocal influence.—One cannot advance without the other.

There have been just three things accomplished in respect to Education. First, the erection of new associations as complements of the University. Secondly, the perfection of the University system of discipline. Thirdly, the development of a system of popular education.

The first we find in the special associations which have been framed for promoting the Arts and Sciences, such as the Royal Academy of London, the Royal Society of London, the Royal Academy of Berlin, and the Institute of France. Associations more or less approximating to European Academies begin to appear in our own country. The Royal Society of London was established on the plan of Bacon, first, at Oxford, in 1645; eighteen years afterwards, it was removed to London. The Royal Academy of Berlin was planned and founded by Leibnitz. He was its first President, and edited the first volume of its transactions. We call these academies complements to the University for this reason: Composed of the most eminent scholars, they devote themselves exclusively to one function of the University in relation to Science and Art, namely,—investigation and discovery, and add to this the publication of the latest results. This function is thus rendered more efficient, while the University, proper, devotes itself more particularly to the work of Education.

In proceeding to consider the modern development of the University system, we cannot fail to remark that the independent spirit and the freedom of the ancient schools have come to be united with the university organization of the model age, through the threefold disenthrallment already pointed out; and Education is now conducted in the light of that legitimate philosophy which has taken the place of scholasticism, is no longer burthened by ecclesiastical prescription, and, emancipated from mere authority, has attained the method and aims of a determinate science. We do not say that this revolution is complete and universal; but it has advanced so far in the most illustrious and influential universities, that very perfect models already exist, and the ultimate and complete triumph cannot be far distant.

There are three things to be considered in an educational system: 1. The natural order of the development of the human faculties; 2. The studies best adapted to this order in advancing from one stage to another; 3. How far education should be prescribed as a discipline, and when it should be exchanged for free and independent study, where knowledge is the object, and culture the necessary attendant.

The University relates to the last. The mind is presumed to have received a discipline, by which, having gained an insight into method, it can now freely go out in search of knowledge, and, with wise discrimination, avail itself of the abundant means and appliances provided in the University, quickened and aided by the voice of the living teacher, leading the way in investigation and thought. Examination of books, original investigations, hearing the teacher, and conducting disputations with him—these constitute the employments of the University. Disputation is essential, for it leads to a more perfect analysis, and clears away difficulties. Socrates' whole method was one of disputation. In some, at least, of the universities of the scholastic age, the Professor was bound to sit after he had delivered his lecture, and hear and answer objections.

Both the ancient schools and the Universities of the middle age had the true method. Both, however, were defective in other respects. The ancients had not properly a preparatory discipline. That of the middle ages was imperfect as to the knowledges taught, and by the want of an orderly and philosophical progress—a progress graduated to the constitution of the mind. It is probable that the introduction of teaching into the colleges was at first induced by the want of a proper preparation for the university lectures on the part of the residents. The ancients, again, were without organization. The middle age had organization, but was without true freedom of thought.

See, now, what has been accomplished in the modern age! I cannot go to England for illustrations, for there has been retrogradation instead of progress. I must, of necessity, go to France and Germany. I will confine myself to the last, for Germany has taken the lead in modern university development. In Germany, we find a science of Pedagogy, and institutions based upon it. Pedagogy is the combined result of a priori psychological determination, of observation and experiment. Psychology gives the mental faculties, and the natural order of their development; observation confirms this; experiment tests studies and method. We do not affirm that pedagogical science is perfected; but we know that it is in progress and has already led to important results. We see these results in the schools preparatory to the university, and in the University itself. The limits of each have been determined, and their proper relation revealed; courses of study have been adjusted to the human faculties, and definite periods of time adjusted to the courses of study. Time and labor are both saved, and all labor is made productive. A boy having gained the usual and necessary rudiments of learning, at some seven or eight years of age, enters upon the preparatory discipline. The whole of this discipline is found in one institution—the Gymnasium. Here classes are graduated, extending through some ten years, embracing what is most needful to learn within that time, what experiment has determined it is possible to learn, and what philosophically considered must constitute the best discipline of the mind up to the period of nascent manhood. Here is no arbitrary four years course, for a degree of Bachelor of Arts, and no arbitrary seven years course for a degree of Master of Arts. These degrees are abolished. In England, the attainment of a degree is the object of the course. In Germany, the attainment of a certain discipline connected with a certain amount of learning is the object of the course. The degrees were instituted in the scholastic age. They had then a definite meaning—they were accredited diplomas of the public teacher. If the number of years was graduated to the existing state of knowledge, when philology was crude, when science was in its infancy, and when scholasticism reigned supreme, with what propriety can that number be retained now, when all is changed, and we have a new age of letters, science and philosophy? But the graduation had not even this merit; on the contrary, it was purely mystical. Seven was the sacred number; hence, seven was made to embosom the arts, and to express the years for their acquisition. If the mystical number of arts be discarded, why retain the mystical number of years? And we may ask, too, why retain the degrees which were the exponents of this mystical discipline?

And this course, in the German gymnasia, has the merit, too, of being open to improvement, as the science of pedagogy advances—that science which determines the proper and adequate preparations for free and independent study, and many self-discipline. For the increase in the number of sciences, for the wider and richer unfolding of the sciences, for the farther sweep of all human knowledge, provision is made in the University.

We perceive, then, that the establishment of the gymnastic preparatory course has led to the proper development of the university. Or, taking the actual historical order of development, instead of the logical, the efforts of great and enlightened scholars to perfect the university, forced the gymnasium into existence. See, now, how natural and beautiful is the relation of the two! In the gymnasium, the student serves his apprenticeship to the art of study. But the art of study is gained in the act of studying, that is as knowledge is gained. But, again, the branches, by the study of which the art of study is gained, are those which are preparatory to the study of all science fully provided for in the university; that is of languages, the pure and mixed sciences in their fundamental principles, history, criticism, and of whatever may lie at the basis of a superstructure of knowledge in any field open to the human intellect.

Now, entering the university not by presenting a diploma, but through the ordeal of an examination, the student finds himself qualified to read books, to investigate subjects, to listen to learned lectures, to engage in learned discussions, and to carry on wisely his education, whether he addict himself to a profession, to any particular science, or aim to become himself a professor in any of the faculties. In the university, the opportunities of study are without limit, and the student may be a student all his life.

We have remarked that degrees do not wait upon the course of study pursued in the gymnasium, although, that course embraces all that English and American colleges can pretend to. Indeed, according to the most ancient academical laws and precedents, the university alone is competent to confer degrees. Even in England, where education is resigned into the hands of the College, the University alone confers degrees. In Germany the University confers degrees also, but sparingly, specially, and never upon whole classes. We have already stated that the two degrees of arts are abolished.—This may be considered as consequent upon a new division of the subjects of study. In the scholastic age, the studies belonging to the three learned professions were termed philosophies, and all other studies were termed arts. In Germany, the studies of the learned professions are designated by the titles of the three corresponding Faculties —theology, law, medicine; and all other studies are comprised under the general title of philosophy, with a corresponding faculty.

In philosophy only one degree is conferred—that of Doctor of Philosophy. This is conferred upon application by the candidate, and after an examination. It has a meaning, since he who receives it, is deemed qualified to commence a course of lectures in the university. In medicine and law the degree of Doctor is conferred upon the same conditions and implies here likewise the qualifications and privileges of a public lecturer in the respective faculties. Doctor of Theology is purely honorary, and is conferred rarely, and only upon clergymen of very high distinction. The old academical law is thus preserved in the German universities, by which a master or doctor is entitled, if not obligated to teach. We find in these Universities three classes of teachers: First, the ordinary and salaried professors; second, the professors extraordinary, or, as we would say, assistant professors, who receive no salary, and depend upon class fees alone; third, the mere Doctors in the different faculties who commence lecturing, and who, also, receive only class fees. These are called Docentes or Teachers.

A German University is, therefore, an association of scholars for scientific and educational purposes, as truly as the scholastic Universities; but as much in advance of the latter, as the modern world is in advance of the middle ages in general intelligence and useful improvements. We find here renewed, the freedom, the spirit, the ideal conceptions of the Greek schools; we find preserved in full energy the organization of the scholastic Universities; but, in addition to this, we find the modern University placed in its proper relation as the culmination of a grand system of Education. The good of the past is preserved, the evils are eliminated, the imperfections are supplied, and the unity of all true progress is demonstrated.

The third point to be noticed in modern educational development is popular Education. This is a necessary part of the educational movement, and must follow the proper university development. We have shown how the few great thinkers must first appear; how they naturally become the educators of their day, and permeate all following times with the quickening energy of their thoughts. We have shown how naturally and inevitably learned associations arise from these, and grow into educational organizations. It is all a work of genius and free thought. It is a light struck from the heart of humanity itself. It cannot be isolated, it cannot be confined; the very law of its existence is that it shall spread itself far and wide. Disciples gathered around the old philosophers to be taught; they in turn could not but teach others. Thousands crowded the halls of the scholastic universities, drawn by the charm of knowledge, themselves to be graduated as teachers; the very condition on which they were taught was that they should teach others. Education has never been confined to rank. The call to thought was breathed by the winds, murmured by the streams, scattered abroad by the light, written in the beauty, harmony, and glory of creation, and spoken in the inward sense and longing of the human heart. Education could not begin, without, in the end, becoming universal.

The modern university exemplifies this principle of necessary diffusion. The university must be supplied from the gymnasium; the gymnasium must be supplied from the broad and deep reservoir of the people. But a rudimental training becomes necessary as a preparation for the gymnasium. Here then is the necessity of a general rudimental education. Then arises a supply of a different kind moving in the opposite direction—a supply of teachers. The taught must teach, or the whole system breaks to pieces. Hence, the university supplies teachers not only for itself, but for the gymnasium also; and the gymnasium must directly or indirectly supply teachers for the people. With the multiplication of educated men, entering into all the offices of society, the charm of education is felt, and its necessity perceived. The genial inspiration spreads, and a whole people is pervaded by the spirit of education. Popular education is the natural and necessary result.

Compare now the state of popular education in England with that in Germany. In England the university system has not reached a proper development. Here the teachers are only the fellows—an elect and exclusive class; while the graduates at large instead of feeling the obligation of becoming teachers in time, and finding a field open for the exercise of their vocation, go out into the world as men who are possessed of a privilege which belongs to rank and fortune. And hence, no system of popular education has, as yet, made its appearance here.

In Germany on the contrary, where the gymnasium is open to the poor as freely as to the rich, where all who honorably pass through the gymnasium cannot fail of finding access to the university, and where every educated man becoming a member of the great educational system, incurs the obligation as well as meets the demand to contribute by his labors as a teacher to its sustentation—there we find a most perfect system of popular education. As every thing in education depends upon a proper supply of teachers, so there the primary or common school is provided for in a distinct institution—the Seminary or Normal School; while this again is supplied with instructors from the university and gymnasium.

The grand result may be stated in a few words—every individual of the people receives at least a rudimental education, and the highest forms of education are possible to all, without distinction of rank and fortune.

We have thus, in pursuing the course of educational development, been led to the German, or, as it is more commonly called, the Prussian System, its highest, and most perfect representative in modern times. We have been led to this inevitably. It is not the opinion of an individual, or of a class. The wisest philosophers, and the greatest educators have united in commending this system. Were it necessary to appeal to authority, I might mention two names, than which none can be found more illustrious for intellect and learning, or more devoted to the great cause of education and civilization. I refer to Cousin, of France, and Hamilton, of Scotland. The first, while minister of Public Instruction, was sent on a special mission to Prussia, to examine and report upon its system of education. That report was received with universal approbation in Europe and America. Through its influence, important changes were introduced into the system of public education in France. Hamilton reviewed this Report in the Edinburgh Review. "The institutions of Germany, for public instruction," he remarks, "we have long known and admired. We saw these institutions accomplishing their end to an extent, and in a degree elsewhere unexampled; and were convinced that if other nations attempted an improvement of their educational policy, this could only be accomplished rapidly, surely, and effectually, by adopting, as far as circumstances would permit, a system thus approved by an extensive experience, and the most memorable success."

IV. ON IMPROVEMENTS PRACTICABLE IN AMERICAN COLLEGES.

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Continued from Page 185.

Should neither of the plans, [first, by lengthening the period allotted to college education, and secondly, by increasing the exactions required for admission into the lowest class,] which I have presented for relieving our colleges from their present embarrassing condition, in which they are consciously attempting a greater labor then they are capable of performing, meet with general favor, then I know of no alternative but that we should reject entirely from our regular course of study for graduation, many of those branches of Natural History, or of physical science, pursued into its practical applications, of which we now confessedly furnish but very meager sketches, and which therefore, without being themselves mastered even in outline occupy much time which might be more usefully employed. I extend this remark to the modern languages, which are always easy of independent acquisition by a person who has use for them, of which the proper pronunciation, which is the only particular in which the assistance of a teacher is necessary, is literally *never* acquired in colleges, but which, in many institutions within the circle of my observation, have made very large and serious encroachments upon the time once devoted to the eminently disciplinary and inestimably valuable study of the Latin and the Greek.

Is it worth while to deceive the public, by pretending to teach all these things when the possibility of our doing so, except in pretence, is a palpable absurdity?

But it may be said that the mere outlines we give have their value. If they do not conduct into the depths of a science, they furnish some general notions regarding it; they acquaint the student with names, and enable him to converse upon such matters in a general manner, so as not to appear utterly ignorant when they happen to be introduced as topics of discussion. This is a plausible apology for superficial knowledge, but I can call it nothing better. I can not believe that the advantage gained is worth the sacrifice which is made to secure it. The fact is, that most branches of natural history are subjects on which individuals must inform themselves independently of masters; or if they resort to the assistance of proficients, they must do this in institutions specially devoted to the elucidation of such subjects. Associations of naturalists furnish the best schools which our country yet possesses for this purpose, and no individual, whatever may be the extent of his elementary acquirements in those departments of knowledge, will find them of any after value, if he neglects to resort to these means of advancing and perfecting them. If then, our colleges would disencumber themselves of any part of the intolerable burthen which they attempt at present to carry, and if they can not be induced either to throw a portion of it upon the schools below, or to extend the period of time over which it is spread, they have no remaining resource but to abandon the attempt to teach some of the many things in regard to which their present teaching is little better than a farce. Let practical sciences, like Civil Engineering and Chemical Analysis go over to special schools, of which already several have arisen, either associated with colleges or disjoined from them, highly honorable to the country, and, until higher Universities rise up among us, let the various branches of Natural History find their encouragement among associations of men whose taste lead them to their cultivation. If, however, either of the previously suggested expedients be deemed more eligible, let the concluding years in college be given in great measure to subjects of this nature; and in order that the results may not continue to be as unsatisfactory as they are at present, let the principle of option be freely introduced into this part of the course, so that the efforts of individuals may not be rendered unproductive, by being frittered away upon an endless variety of subjects.

I pass to inquire whether our college system does not admit of some improvement in regard to the *stimulants* held out to incite young men to intellectual effort. In professional schools, to which students voluntarily resort, at a time when they begin to feel themselves dependent on their own exertions, and when they are conscious that the knowledge they acquire is to determine the degree of their success in life, no special stimulants are necessary to secure the profitable employment of their time. In college, this motive is much less influential, and, as a general rule, it may be said hardly to exist at all To an imperfectly disciplined mind, on the other hand, mental exertion is positively irksome, while in the morning of life, the allurements of pleasure and the temptations to indolence are almost irresistible. Opposed to influences so prejudicial to the formation of studious habits, we have that love of pre-eminence which naturally inheres in the breast of all mankind, and which, of itself, without being fostered by any artificial stimulus, is sufficient to elicit in many, a very commendable spirit of exertion. The pride of successful scholarship is a feeling honorable to its subject; and I am far from being able to believe that it ought in any manner to be repressed. There are some, I know, who regard all pride as sinful, and who maintain that the actions of men, whether in youth or in age, ought to be influenced by no motive but that which is found in a sense of duty. Such views, however, are not those of the majority of men; and I shall presume, without entering into any argument on the subject, that they are not the views of the body I am addressing.

But if the simple desire to earn an honorable name for intellectual superiority in the little community of which he is a member, be often a sufficient motive to impel a student to exertion, this motive may be rendered much more efficacious, by the adoption of such means to mark this superiority, as shall stamp it with the character of an ascertained and recognized fact, and shall give it publicity not only in the college but in the surrounding world. In most of our colleges, therefore, varying grades of honor are assigned to the most distinguished members of each class, at the conclusion of the course, and sometimes on other occasions. It is generally an honor, to be permitted to take part in the public exercises of commencement day, or of the class exhibitions; and certain of the exercises then assigned to individuals are commonly understood to signify a distinction of the highest character.

This plan is attended with undeniable advantages; but it is to be observed of it, that all the distinctions it confers are merely relative in their significancy. They denote the superiority of one individual over others of the same class, but they afford no means of comparing one class with another. It seems to be desirable that some means should be devised for stamping absolute, as distinguished from relative merit. We ought to be able to say of a scholar, not merely, that he is better than another, which, if the entire truth were known, may after all be but insignificant praise; but that he is capable of passing with honor some definite and intelligible ordeal, such as may be provided by requiring of him the performance of tasks of ascertained difficulty.

Such tasks may be prepared in the several departments of instruction by the officers respectively in charge of them; and if no individual of a class shall be found equal to the highest or the second or third in grade of difficulty, the corresponding honors may for that time be withholden. A plan like this will make the members of every class competitors, in a certain sense, with all who have gone before them; and its tendencies must obviously be to stimulate effort to a much higher degree than where the competition is only for the stamp of a certain nameless and indefinite merit, in no instance clearly ascertained.

It is worth considering, moreover, that this plan will remove, in great measure, the moral evils which are probably inseparable from a competition immediately personal; since, when the struggle is for absolute and not for relative superiority, the success of one aspirant to honor does not involve the necessary humiliation of another.

As permanent tokens of these distinctions, prizes in the form of valuable medals, books, instruments of science or other convenient objects, may very properly be conferred. The number of these, the frequency with which they should be distributed, and the various kinds of merit which they may most judiciously be employed to distinguish, may be subjects for more mature consideration.

As to the manner in which these distinctions should be awarded it is obviously proper that the performances of all the parties convened, should be submitted to a committee of disinterested judges, who should have no duty but to compare them with the standard of absolute excellence set up, and to determine how far they fulfil the conditions required. Upon their report, the decision should be announced and the prizes presented in presence of the public, on Commencement day.

As to those relative distinctions which are now I believe, almost invariably made among the members of each class, since they are awarded in view of the whole series of performances which have been daily exhibited throughout the whole preceding course, it appears to me that they should be made to depend, not entirely upon the judgment of the faculty, nor entirely upon the exhibit of the contemporaneous record, but to a certain extent at least, upon the opinions of the students themselves as expressed by vote. The voting should be not explicitly to assign definite distinctions to definite individuals, but should be in the form of lists of merit, which should include the names of the entire class or section to which each voter belongs, or of so large a number of them as may be prescribed, his own course being excluded, arranged numerically in the order of merit. Double lists may perhaps with propriety be required, distinguishing independently the order in letters and in science; and every voter should of course be put upon his honor to give his suffrage in accordance with his honest convictions.

I found this opinion upon several considerations which appear to me to be not without a sensible importance. In the first place, students observe their fellow-students from a point of view inaccessible to the Faculty. They are sometimes aware of the practice of arts which can not be known to the instructor, by which an individual may seem to be entitled to a credit which is not fairly his own. Translations and interlined books in the languages, borrowed solutions in the mathematics, and other similar aids, may be employed by some, while by others they are honestly rejected. To give to the popular voice a certain weight in the assignment of honors, is to put the most effectual check which occurs to me to practices like these.

In the second place, to make all young men more or less dependent for distinction, upon the estimation in which their attainments and abilities are held by their peers, is to impress them with a higher sense of the value of an honorable reputation, and a more honest desire to possess a real rather than a seeming merit. In this view of the case, I can not but believe that the moral influences of the plan I recommend must be good.

In the third place, I believe that it would be a gratification to the parties interested—and all are more or less interested, whether candidates for high distinction or not—to be recognized as judges in the assignment of the honors won in a competition of which, all have been equally witnesses; nor can I perceive that any disadvantage can attend the policy of permitting this gratification.

I would, of course, have the judgment of the instructors, as well as that of the students, consulted; but as to the relative weight which should be given to each, I am not fully prepared at this time, to express an opinion.

Besides the stimulants to exertion already mentioned, an additional one may be provided by the foundation of scholarships. Scholarships already exist in some of our colleges, but I do not know that they are generally conferred on individuals in reward for meritorious exertion. Indigence has perhaps been regarded as presenting a higher ground of claim for their advantages than merit; or possibly it may be said with greater correctness that while merit has been in some degree considered, indigence has nevertheless been made an indispensable condition of their bestowal. If scholarships, however, are to be employed for the purpose of stimulating the highest exercise of talent, they must be trammeled by no considerations like this. They must be understood to be rewards of merit exclusively, and they must be conferred on the most meritorious without regard to their circumstances. It is unfortunate that, in the great multiplicity of colleges in America, the public munificence is so divided up and parceled out, as to render the expedient here suggested one which we can hardly hope soon to see generally employed. Scholarships are too expensive expedients to be available in institutions which are barely able to sustain themselves, and which do actually succeed in sustaining themselves only by making the salaries of their officers barely sufficient to sustain life. But if, in any of our institutions, it should be found practicable to hold out the encouragement to exertion, which the prospect of securing a scholarship may be presumed to afford, the following suggestions may have a value.

1. The design of these species of stimulus being to keep the spirit of effort alive, a scholarship should be liable to forfeit, whenever its incumbent falls into habits of idleness or vice.

2. As the object is to encourage industry *in college*, and not directly to reward successful exertion during the period of preparation, no scholarship should be conferred upon a student, until after the close of at least a year from the time of his admission. The benefit may then be made retro-active, and the value of the scholarship for the year that is past may be made over to the successful competitor at once.

3. This principle may be extended, should it be thought proper, from year to year; or the beneficiary may continue to hold his position, until, by his own neglect of study or vicious conduct, he may be adjudged to have forfeited it. Under these conditions, scholarships, whenever there exist the resources to create them, may probably be made an eminently efficacious means of encouraging to attainments of the highest order. Since they are conferred as honors, no fastidiousness will be likely to reject them merely from a fear of incurring the imputation of mercenary motives; while the pecuniary benefits which they carry with them will prove a real, though perhaps an unavowed, incentive to the desire of securing them.

It may be said, and there is force in the remark, that the kinds of stimulus of which we have been speaking are in their own nature, restricted to the few. Scholarships and prizes can not be numerous, and the merely nominal honors which most colleges confer, leave, after all, the great majority of every class undistinguished. To obviate in a measure this advantage, a plan of grading is in general use, founded on the recorded values of the several performances of all the students, estimated according to a definite scale. Upon this basis, a special merit roll is made out in each study or in each department, and a general merit roll is constructed from a combination of all of these together. The results of these records are usually communicated periodically to the parents and friends of every student. By this means the honor which is due to respectability is presumed to be secured, no less certainly than that which the higher distinctions award to superiority; and no one is permitted to feel that his deficiencies will be covered up and concealed, in consequence of his being confounded with a multitude.

This plan, which in theory is unexceptionable, seems to be attended with some practical disadvantages. An experience of many years has failed to satisfy me that its tendencies are entirely good. It encourages to a pernicious extent a disposition to resort to those artifices by which young men often endeavor to impose on their instructors; and leads them to place a higher value upon show than upon substance. This is among the considerations which have induced me to believe that it is useful, from time to time, to take the sense of the students themselves in regard to each other's merit as scholars. Were this practice to be made a recognized part of the system, I am persuaded that results much more worthy of reliance than are now possible would be reached; while genuine scholarship would become an object of higher ambition, and unworthy arts would fall into deeper disrepute.

The system of grading might furthermore be made more efficacious as an incitement to application than at present, should classes be divided into sections upon the basis of comparative scholarship. This plan is, I believe, in practice at the Military Academy at West Point; but I am not aware that it has been introduced into any of our colleges. Let those of the highest order of merit be separated from the rest, or let there be several subdivisions established on the same principle, each reciting by itself. Degradation or promotion from section to section may then be made the penalty of relaxation of effort or the reward of increased diligence and success. To carry out in practice a plan of this kind may seem to require an increase of the number of instructors now found sufficient, or of the amount of labor which the same instructors are expected to perform; and to a certain extent, this may be true. But with the reduction of the numbers reciting at the same time, the duration of the recitation may also be, in a measure if not correspondingly, reduced; so that the burthen may not necessarily become intolerable.

I believe this suggestion to be well worth consideration. It is notorious that the largest amount of the teacher's time and attention is almost invariably occupied with those members of a class who are most deficient in preparation of their daily exercises; and who either from inattention or incapacity, are slowest to learn. This portion operate as a dead weight in retarding the progress of the rest; and the example of their imperfect performances operates inevitably to degrade the standard of excellence in recitation. Let them be separated from their superiors, and, if they are capable of being stimulated at all, they will endeavor to escape from the implied degradation; if not, they will at least, no longer be an injury to any but themselves.

The object of University Examinations in foreign countries is to determine the fitness of their subjects for the honor of graduation. With us, for the most part, this fitness is presumed to be ascertained mainly by the record which is kept of the performances of our students during the entire period of collegiate instruction; and if examinations are regarded as criteria of attainment at all, it is only to a moderate degree. In point of fact, as they are usually conducted, they are not worthy of any great reliance, considered as tests of scholarship or attainment. They are generally brief in duration, confined rigidly to the matter of text-books, almost always oral, and conducted in each department by the instructor himself. A few minutes allotted to each student is all that the arrangements permit. A few questions, difficult or simple, as accident may determine, a single passage in a Latin or Greek author, a single proposition in the mathematics, or the enunciation of a principle in physical science, furnish the entire test by which the attainments of several years are to be judged. It is no uncommon thing for a young man conscious of great deficiencies, to congratulate himself upon his happy escape; or for one who entertains a pretty well-founded confidence of success, to be subjected to severe mortification. Our colleges are therefore right in regarding their examinations, as they are at present conducted, as being of comparatively little value in determining relative grades of scholarship, or in ascertaining the fitness of their students for graduation.

I have no hesitation in expressing the belief that, unless these exercises can be so modified in their plan and their thoroughness, as to become in fact what they profess to be in name, it would be better that they should be abolished entirely. They ought to be the means of ascertaining how faithfully the student has employed his time and what is the extent of his knowledge of the subject with which he has been occupied. To this end, they should in the main be conducted in writing, and the same tests should be applied in every individual case. These tests should be carefully prepared before-hand, in such a manner that they may show at once the range and the depth of the student's knowledge. Time enough should be allowed to render the trial a thorough one. The tasks allotted to each examination-session should only be made known after the session has commenced; and no one should be permitted to depart until he has completed his performance. Such performances may be fairly relied on as presenting an exhibit of scholarship both positive and comparative; and in this respect they are infinitely preferable to any record of daily recitation which can be kept during the period of instruction.

A great vice of this latter criterion is, that it encourages a habit of studying merely for the moment; of depending too much upon the the mere exercise of memory, and of concentrating the attention too exclusively upon the task of the day, without sufficient regard to its connections with those of yesterday and of to-morrow. The instructor, who, without giving previous notice of his intention, calls for some fact or principle which was fresh a week before, finds himself too often able to elicit only the most unsatisfactory and meager replies. If young men are made to feel that their merits will be estimated by the actual *results* they have to show for the time and labor they have expended during their college course, and not by that semblance of knowing which is carried without much difficulty directly from the text-book to the recitation, it may be hoped that substantial attainments will come to be more highly esteemed, and will be more generally met with.

Some of our colleges already employ the plan of examination which I have recommended. Whether any of them make it, however, the sole basis of *classification* in regard to scholarship, I am not informed. That it ought to be made so, I am, for my own part, fully persuaded. I can see no injustice which it is likely to operate, since it places all upon a footing of more perfect equality in regard to opportunities than any other plan which can be devised. And its adoption will at once set at rest many troublesome questions which are apt to arise, in the adjustment of the scale of merit upon the plan now generally in use.

The subject of academic degrees requires but a brief notice. I suppose, that if our colleges continue to adhere to a prescribed course of instruction, some form must be kept up to distinguish the student who has fulfilled all the requirements of this course, from one who has not. The degree of Bachelor of Arts serves at present to make this distinction. I do not know that it has any other use; but should it be abolished, as some have desired, I see no escape from the necessity of adopting some substitute to answer precisely the same purpose. If any object to the *name*, on the score that the word "Arts," in the sense in which it is here employed, is obsolete; it may be very well replied, that the name is ancient, and venerable, and universally intelligible; and that, if it carries with it, as it does, a sort of academic odor, it is in fact all the better on that account. But since, in regard to the necessity of preserving the *thing*, there can hardly be two opinions, it seems to be a very idle and useless waste of time to dispute about the name by which it shall be called.

Some writers who have advocated the voluntary, or as it has been otherwise called, the "open University" plan, have sneered at this feature of our system, as if the degree were the reward of *residence* in college, and not of any necessary amount of attainment in arts. Any one, they say, can attain the distinction of graduation, who chooses to remain four years in college; whereas in the model institution, in which their views are illustrated, no one can be a graduate, however long the period of his residence, until he shall have been pronounced proficient in a sufficient number of departments. These statements are in a certain sense correct; and in a certain more material sense, otherwise. A student, after a four years' residence in college, usually succeeds in securing the Bachelor's degree; but it is to be observed that he must first *reside the four years*—a matter not entirely optional with him, since he is always liable to be turned back or dismissed for deficient scholarship. In the "open" Universities, on the other hand, though degrees are not granted except on evidence of proficiency, I know nothing to limit the duration of residence, so that apparently they are deficient in one important species of stimulus to industry.

The degree of Bachelor of Arts, or something equivalent to it, to be conferred on those who appear to be worthy of it, at the end of the stated course of study, seems to me, therefore, to be indispensable. But though I see no reason to recommend any change in regard to the usages relating to *this* degree, the case is very different in reference to the higher degree of Master. In the English Universities, when the period of education extended to seven years, and when teaching in order to learn was one of the agencies employed in those institutions, this degree was conferred only after the Bachelor had devoted himself for three years to higher attainments, and to the business of actually instructing others. Among the many abuses which have crept into those venerable institutions, these regulations have disappeared. Neither teaching nor study is necessary to enable the Bachelor to proceed Master, yet the three years' interval between the granting of the two degrees is still maintained. Our colleges have borrowed this later English usage; and in most of them now, the degree of Master is conferred "in course" upon all Bachelors of three years' standing. The consequence is, that the degree of Master of Arts is significant of nothing at all, except of the fact that the recipient has been graduated before. It is therefore of no use as a stimulant to exertion, to students either in college or out; and it might without any disadvantage be abolished entirely.

Our practice in conferring this distinction indiscriminately upon all the alumni of our colleges, operates to render it nearly valueless when it is bestowed, as it occasionally is, for meritorious attainments, upon those who are not already graduates. An honor is not an honor when it is shared with all the world; and more especially when it is attained by most of those who wear it, without any merit of their own. It seems to me that the practice of our colleges on this subject should be discontinued; and that hereafter, if there is to be such a thing as proceeding to the Master's degree "in course," this course should mean something more than *the course of time.* Perhaps a careful examination of this subject may lead to some eligible plan for reducing within tolerable limits the extended curriculum of study upon which I have already sufficiently commented. Perhaps the idea of lengthening the period of study may be rendered more acceptable, by suggesting that the Bachelor's degree may be conferred at the end of four years, upon such as have passed through a course of a character mainly disciplinary; and the Master's degree reserved for those who choose to remain an additional period in the pursuit of those branches for which we have, at present so little time to share. Upon these points I content myself with these brief suggestions.

Though the government of our colleges is, in theory, parental, in practice it partakes very little of this character. The arrangements presume that the students are subject to the constant supervision of the authorities, but in point of fact this supervision is so nearly nominal, as, if considered in the light of a restraint, to be without any material value. Though students, are by law at all times liable to visitation in their apartments, they are rarely visited oftener than once a day, and in many colleges not so often. The influences by which a disposition to disorder are principally restrained, are simply such as operate on men in ordinary society—the advantages which spring from a fair reputation, and the disadvantages to which irregularities of conduct inevitably lead.

The difficulties of College Government, grow mainly out of the questions, how shall offences be prevented, and how, when they occur, shall offenders be treated. In regard to the first point, I am persuaded that little is gained by holding out the idea that the Faculty expect to accomplish much by the mere exercise of vigilance. This is directly to invite a trial of wits between the two parties, in which the advantages are all on one side; and it is to give birth to a feeling that good order is not a matter in which the governors and governed have an equal interest. My experience satisfies me that, more may be accomplished by appealing to the sense of propriety of which no young man is wholly devoid, and by professing to *expect* that a community of young gentlemen will behave as gentlemen should, than by permitting them to suppose that any reliance is placed upon any degree of watchfulness which the Faculty have it in their power to exercise over them.

In regard to the treatment of offences, I am less and less inclined to believe in the efficacy of any graduated system of penalties. Private admonition and remonstrance I regard as preferable, in all cases where offences are venial, to public censures; and if these means fail to reform, they should be followed by removal from college without the superadded mortification of notoriety. More serious cases, which are rarer, may require severer treatment. In regard to such no remark is necessary here.

In many institutions the practice exists of keeping a record of demerit. All minor offences are rated according to a certain numerical scale, and the student whose account reaches a certain maximum, within a time specified, is cut off from his connection with the institution. In a college of which I have been an officer, I have seen this plan in operation for many years; and I have afterward seen it discontinued for several more, without any sensible disadvantage. In fact if any noticeable consequence could be considered as attributable to the change, it was rather an improvement than a deterioration of the general good order of the community.

No one can be more decidedly opposed than I am, to excess of penal legislation. Its effect is often as much to create as to prevent evil, and I have never yet seen a college in which the fault appeared to be that there was too little.

In regard to the discovery of the perpetrators of secret offences, the laws of different colleges differ among themselves. Some institutions claim the right to compel every student to exculpate himself; for which purpose his own declaration is, in the absence of any circumstances calculated to invalidate it, accepted as sufficient proof of innocence. Others require the testimony of the witnesses to the facts, thus occasionally compelling one student to inculpate another. Both these methods of investigation have been the occasion of serious difficulties; and it is probable that neither is expedient so long as there is any possibility of securing the ends of good government without them. The first appears to me, after having been a witness of its practical working, in several instances, to be so objectionable, that I can not believe it ought any longer to be suffered to stand, as a rule of proceeding in any college. The other, which is the only alternative, can hardly be relinquished, unless it is intended to disarm the government entirely; but the cases which will justify an appeal to the powers it confers, will very rarely occur in an institution which is generally well managed.

It is my opinion that the colleges of the present day are distinguished by a much greater uniformity of good order, and so far as appearances go, of propriety of conduct on the part of students, than was the case twenty or thirty years ago. Those premeditated disturbances and freaks, originating in the pure spirit of mischief, denominated "college tricks," have, within the limits of my observation, been growing less and less frequent; and the occasions have become sensibly rarer throughout the country, on which there has been any thing like an organized resistance to college authorities. Whether this be a result of a growing disposition on the part of college officers to rely more upon personal influence, and less upon law than formerly, or whether it be owing to the increased disfavor with which such things are looked upon by the public, the result may in either case be accepted as an evidence of improvement, which can not fail to be gratifying to the friends of education every where.

In connection with the subject of government, it is in order to allude to a radical evil of our system, out of which a multitude of consequent evils grow. I can conceive nothing more injudicious in principle than the collecting together, in an isolated community, apart from the observation of the public, and but nominally subject to the supervision of those who are presumed to watch over them of a large body of young men fresh from the restraints of the family and the school, and surrounded by a multitude of novel temptations. The dormitory system, as it is called, I esteem, for such a class of persons, to be purely and unqualifiedly bad. It is pernicious equally to the morals and the manners. It fosters vicious habits, blunts the sense of delicacy, encourages rudeness and vulgarity of speech, leads to disregard of personal neatness, and is finally the obvious and immediate cause of nearly every one of those offences which the penal laws of colleges are enacted to punish.

I am aware that many of our existing colleges are so situated as to render the abandonment of the system, at least for the present, and for then, an impossibility. The dormitories are built, and no choice remains but to continue to occupy them; since they are unfortunately built in situations where no other accommodations can be obtained. Their locations have been selected in consequence of what seems to me to be a very idle fear of the injurious influences which are supposed to hang around large towns. In some cases, where a choice has been made more wisely, either no dormitories have been erected at all, or none have been recently erected to accommodate growing numbers. This is a subject, the discussion of which is out of place here, and my views in regard to it have been elsewhere so fully expressed, that I content myself with this brief allusion to it.

It is a part of the duty expected of me that I should consider the question whether it is possible to do any thing to improve the relation in which our colleges stand to each other. Upon this point I shall be very brief. It the first place, it may be observed that if the system itself is to undergo any important change, the benefits which such a change may bring with it, can only be secured by the general acquiescence of all the institutions concerned. The perfect independence which our colleges enjoy, not only of each other, but of any superior controlling power, renders it impracticable to unite them in any common and simultaneous movement, except by first convincing them of its necessity. If it is not a mistake to presume that such a necessity does really exist, then we can not doubt that a conviction of its reality must every where follow a fair examination of the subject. The question then next arises, how can we secure such an examination—how can we awaken the spirit of inquiry among all those who, whether as officers of Faculties or members of superintending Boards, hold in their hands the management of our more than one hundred and fifty scattered collegiate institutions? Correspondence originating with those who are already alive to the importance of this subject might accomplish much; but who shall take the lead in such a correspondence, or bear the heavy burthen which it imposes? And how, supposing that any zealous individual were to put himself forward in this work, how could such an one hope to secure for his suggestions any higher consideration than is usually bestowed on the opinions of an individual?

Two ideas occur to me as containing within them a possible solution of the difficulty. The first I scarcely venture to present, even with the utmost diffidence. It is, that a convention of delegates from all the principal colleges of the country should be assembled to deliberate upon the measures which the common good requires. It would be too much to anticipate that any very large progress could be made during the sitting of a single such convention. If the plan is worth adopting at all, it ought to involve the idea of a sort of permanent council periodically assembling perhaps as often as once in every one or two years.

I should consider a suggestion of this kind as being entirely visionary, if I were not in some degree encouraged by the fact that, in this Association, we have already an organization which must annually bring together a great and increasing number of the friends of education; among whom we may with just reason expect to find many who are interested in the management of our colleges. If therefore, it should seem to be worth an effort to attempt to secure such a convention as I have suggested, the time and the place which would appear to offer the highest probability of success, would be those fixed upon for the meetings of this Association. I am aware of the serious difficulties which must attend the working of a plan like this. The vast extent of our country, the consequent great distances which many delegates would be obliged to travel, and the expense to which they would be subjected, added to the deficient interest which will probably be felt, in the beginning at least, and in many quarters, in the object proposed, would too probably render the attendance far from general.

I would suggest, therefore, as an alternative proposition, that the standing committee of this Association, or a special committee appointed expressly for the purpose, should be instructed to open a correspondence, by circular, with every college in the country, setting forth briefly the nature of the evils presumed at present to exist in the system, or communicating documents for that purpose; and soliciting from each a distinct expression of views thereupon. Upon the basis of the results thus obtained, the convention could proceed hereafter explicitly to recommend the immediate introduction of such modifications of the system, as should appear to be sanctioned by the majority of voices; and the knowledge that they are so sanctioned would furnish a pretty good guaranty for their general adoption. I limit myself to merely throwing out this idea. I am unwilling to trespass further upon the patience of the Association by enlarging upon it.

Apart, however from the object of endeavoring to unite all the colleges of our country in some plan of definite, simultaneous and concerted action, it seems to be eminently desirable that the officers who control them should cultivate a more extensive and intimate personal acquaintance with each other. I trust that this Association may be found to be one of the most important instrumentalities in bringing about so desirable a result. We meet here upon a common ground, and if we do not come as delegates expressly authorized to commit the institutions we represent to the adoption of specific measure of reform, we nevertheless gather each other's views, ascertain the sense of the majority on all important questions, and go home with re-awakened zeal to pursue our labors in the common cause; and possibly with more enlightened views and better established convictions, as to the direction in which we should put forth our efforts.

Nor should it satisfy us that we meet occasionally here upon a common ground. We should *visit each other* at home, acquaint ourselves with each other's usages, observe each other's arrangements and facilities for giving instruction, attend if possible each other's daily exercises of lecture and recitation, be present as frequently, as our opportunities admit, on the occasions of each other's public exhibitions. By this means, we shall learn to take an interest in other institutions, not unlike and hardly inferior to that which we feel for our own.

It is also highly desirable that an active *correspondence* should be kept up between the officers of different colleges. Nothing can be more effectual in keeping alive an interest in each others prosperity. The interchange, moreover of printed documents and papers, is not only gratifying as an attention, and encouraging as an evidence of, sympathy, but it is substantially useful. Catalogues, addresses printed outlines of lectures, and examination papers, may all furnish information of more or less value, and may sometimes contain suggestions which may be immediately turned to profit.

Finally, the officers of our colleges should cultivate a fraternal feeling. They are laborers in a common cause, and they are bound together by a common interest of the noblest kind. No spirit of rivalry should animate them, save the honorable desire of pre-eminence in doing good. Among the incessant bickerings and animosities of which the world is full, let the friends of education make it manifest, that they are superior to all petty jealousies; and while other questions are perpetually distracting our country, and arraying section against section, on this one at least let it appear that "we know no north and no south," but that all are willing to go hand in hand in the effort to elevate the intellectual character of our whole people.

V. METHOD OF TEACHING GREEK AND LATIN.

BY TAYLER LEWIS, L L. D., UNION COLLEGE.

THE importance of classical and linguistic study has been so well set forth, that I would not dwell upon it here, except very briefly in its connection with my main topic. Its benefits may be classed under the three heads, the disciplinary, the philosophical, and the literary. The first, by some regarded as the most important, we would treat as the lowest in the scale, though still of as high virtue, even in this respect, as those that come from any other department of Education. The second occupies a higher rank. Comparative Philology is in fact becoming the great science of the day. Its connection with Ethnology, and History, with Mental Philosophy in all its departments, is constantly becoming more clear in the abstract, as well as prospective of great benefits in practice. Under this head, too, one might dwell upon its psychological bearings, as resulting from the peculiar position, that the study of language occupies among the sciences. It alone combines perfectly and equally, the objective and the subjective, the outward and the inner world of thought. It is as purely spiritual as Psychology or Logic. It is as distinctly outward as Botany or Geography. The soul, studies itself, but through an outward product as real as the trees, the flowers, the gases, or the rocks; a product which has come from the working of mind through laws as fixed and as ascertainable as those which have developed the plant, the strata, or the chemical combination. And this product is no mere idealized entity, but an abiding, outward thing. It is thought crystalized, laws of thinking exhibited in fixed outward growths, which we can study with as much satisfaction, and as much assurance of finding wonders, as in any of those fields of physical science which are wholly objective.

But these remarks concern the whole province of language of which the Greek and Latin only form a most important department. The third benefit we mentioned, pertains to them in a more exclusive sense. We have called it for the want of a better name, the *Literary*. Aside from the disciplinary and philological benefits, classical education opens the door to an immense field of philosophy and lite-

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rature, whose value at the present day, it would not be easy to calculate. The writer may be led away by a magnified view of his own favorite studies, and yet he must express the opinion, that in the present condition of our country, nothing is more desirable in education, than to bring as much of the youthful mind as we can, in as close communion as we can with the rich literature, and richer philosophy of antiquity. We want it, if for nothing else, for the effect it would have on our modern style of writing. The Greeks and Romans, to their honor be it said, had no light literature in the modern sense of the word. Their short lived comedy, and what may be called their lighter lyrics, can hardly be regarded as forming an exception to our remark. Their poetry, in the main, was ever serious. Their tragedy was deeply moral and religious. Their history has been pronounced too grave. With them the novel was unknown;—that modern thing, which, whatever may have been its merits, is now becoming such an intolerable nuisance. But we have chiefly in view the gravity and dignity which pervaded every department of ancient letters, its freedom from clap-trap, or what may be called the continual effort at fine writing and fine speaking. The secret of all this is, that they wrote not for the million, but for the thinking and cultivated, or we may say, for the million through the thinking and the cultivated. They wrote for minds like their own. Hence it is that they say great things in so simple, so truthful, so dignified a manner. Take the best specimens of what may be called our brilliant or flash literature, how wearied does a truly cultivated taste become with this continual sparkling, this high strained sacrifice of sense to sound, of thought to point or *ad captandum* manner of expression. We need not specify; our whole literature furnishes the most copious examples of what we mean. And then there is its still more offensive pretentiousness. Our best writers of this vicious school, say very fine things at times; they utter truths well worth the utterance, but what a puffing and blowing ever attends their birth. In reading some of the favorite writers of the day, we ever know some time beforehand, when they are in travail with a great idea, or what they would regard as a great idea. Paragraphs, and some times pages off, we begin to feel the heave and swell by which they are announced. We see the sparkling foam and hear the gurgling undertow. The wave of diction rolls up as if the writer meant to overwhelm the reader. And he does overwhelm him; the mischief is, that when the thought comes, we find there is nothing of it, or its force has been spent in all this mighty preparation, and it has not even the effect upon the mind that would have come from its simplest and most direct expression. How different in this respect, the writers of antiquity, who lived before the marked decline of Greek and Roman literature. With what a noble simplicity do Cicero, and Plato, and Plutarch, and Thucydides, say noble things! As we come upon them in the even flow of thought and style, they startle us by their grandeur, or their profundity, and yet the beauty of it all is, that those noble writers betray no consciousness of having said any thing especially grand or profound. It has been an utterance coming naturally out of the even deep of their minds. It is but the natural product of souls ever elevated, ever thinking high thoughts.

We want the minds of our young men brought more universally and more closely in contact with this severe old school. But more than this. In all the fields of thought, we want a more familiar acquaintance with these old masters. Their politics, their philosophy, their poetry are too precious to be allowed to die out, or to be appreciated by a few. Every where the classics are needed. In every respect would the national mind, and national thinking, be elevated and enriched by the study; whilst corresponding effects might be hoped for in giving a better tone, a more healthy intelligence, a higher aim to our editorial and political action.

But we are carried away to a greater distance than we intended, from our main subject. It must be resumed by showing the connection between it and these general thoughts. To produce such an effect, no mere smattering, but an extensive acquaintance with the classics is demanded. How shall this be accomplished? The little that is generally done in our best institutions is but a caricature of the idea we have advanced. A book or two of Xenophon, a half dozen books of Homer, two or three Greek plays, an oration of Demosthenes, a dialogue of Plato; and these read spasmodically, we may say, cut into fragments by daily recitations in which the connection of thought is almost inevitably sacrificed in the mastering of words and phrases,—this certainly is not the classical culture that is demanded. We would not underrate even this. The mind, whether of a man or a boy, is expanded by learning the first declension in the Latin grammar. He sees in it the entrance to a new world of thought. It is elevated and refined by reading one book of Virgil. From a few lines of Homer, a few sentences of Plato, it may get a mental impulse that is never lost, a classical taste or feeling, which may make it a very different mind, a higher mind, a stronger mind ever after. But with all this it may be said, we want far more Greek if we would have results from it to correspond with the time and labor generally spent in its acquisition.

We come then directly to the point. There should be a great deal more read than is generally read in our best schools and colleges.

Education in this department should be carried to that point where facility in reading would let the mind flow easily into the very spirit of the classic author, unfettered by that toilsome difficulty of *construing*, which produces distaste by its laboriousness, whilst it keeps the student incapable of relishing those higher treasures of thought and style, for which the classics should be mainly read. It must be carried to a point where the classical taste will be formed, and an enthusiasm called out which will make it certain that the school books even of our most respectable scholars, will not be closed, seldom if ever to be opened, after graduation.

We must read more. But how shall this be done without sacrificing accuracy, or making a demand of time which will not be conceded. The preparatory study of course must be slow. The time devoted to college is very limited; and that curtailed by the increasing demand for the physical and the practical, as it is called. The obstacles in the way are certainly very great, if not altogether remediless. We might recommend an earlier commencement of the study, a longer time devoted to preparation for college—a more thorough drilling in the elements, as preparatory to more extensive reading afterwards. Much might be said on all these topics, but we would confine ourselves to a single one. On the supposition that other things are well attended to, such as early commencement, thorough drill in respect to forms and syntactical constructions, a faithful practice of what is so indispensable, continual exercise in writing as well as reading the language; still there is one fault which may almost wholly balance the benefit of what in other respects would be the most faithful and judicious instruction.

We allude, now, to the method of reading, or construing, adopted in most schools, and which it is the harder to find fault with, because it is often a favorite with those who, in all other respects, are the most faithful teachers. There is a mode of translating, which is sometimes called the *literal*, although it might with more propriety be called the *verbal;* since, by the word literal, is sometimes vaguely meant the true, or best rendering, in distinction from the false. This *verbal* rendering, as we prefer to style it, is sometimes commended as the necessary opposite of the free, the loose, or the paraphrastic, to none of which terms, as we will endeavor to show, does it stand strictly opposed. A translation may be verbal, and yet the most imperfect of all renderings on that very account. It may be closely verbal, and yet the most loose, and false to the idea, by reason of this very unnatural strictness. To this verbal rendering, then, we would oppose as its natural and preferable opposite, what may be called the *idiomatic.* The difference may be made clear in a sentence. One renders word for word as far as it can be done, for often times this is impossible—the other renders idiom for idiom. In the first, one part of speech in one language is ever made to represent the corresponding part of speech in another,—as noun for noun, verb for verb, participle for participle, adverb for adverb, &c. In the other, one *construction* is made to represent another construction, and the inquiry ever is, or ought to be, what good and idiomatic English corresponds to what good and idiomatic Greek. The pupil should be told, thus the ancient language expresses a given idea, and thus we express it—what the Greeks say in *this* manner, we say in *that.* The one is the equivalent of the other. We must translate it into our own language, not by equivalent words, but by well known, well established, equivalent idioms. The first method would often not be a *translation* at all, that is, it would not *set over* the thought from one tongue into the other. It would convey too much or too little,—seldom the precise equivalent of meaning.

An example or two will set our meaning in the clearest light. A boy has to translate the Greek phrase, ἀλγεῖ τὴν κεφαλὴν. "*He is in pain as to the head*," says the pupil, and the teacher approves. Here is a *verbal* rendering, verb for verb, article for article, noun for noun. Why is it not correct? In the first place we reply, it is clumsy English, or rather it is not English at all. The single words, it is true, belong to our language; but we do not thus put them together—it is not the way we talk. This alone is a sufficient reply in one aspect of the matter. Translation is from one language into another—not simply from the words, but from whatever is peculiar in one language to what is peculiar in another—it is from good Greek to good English—not to the barbarous dialect of the school-room, which is often neither Greek nor English, nor any thing else, but a jargon that might have confounded Babel itself, but to good English, such as a good writer or speaker would use, if he meant to express the idea in his own tongue, without any thought of another language.

And here we might digress on the importance of correct and elegant translation as one of the best modes of studying thoroughly and acquiring practically the power, the peculiar power of our own tongue. We might show that the true knowledge of a language is a knowledge of its idioms, and that it is difficult, if not impossible, to acquire these, without the knowledge of some other language, with which to compare it. We might show that for the purpose of such comparison and mastery of our own tongue, nothing is so well fitted as another, and especially an ancient language, remotely different from it in its modes of conception and expression. We might show this, and much more than this, but it would be in some respects a digression from our main topic, and the conclusions to be deduced would readily present themselves to the minds of my hearers.

To resume then, that which we have chosen as our model phrase; ἀλγεῖ τὴν κεφαλὴν and its verbal translation, "*He is in pain as to the head*, or "*he is in pain, the head.*" It is not good English, we say, and we should never use any other if we can help it, either in the recitation room or elsewhere. But secondly, it does not convey the sense. How not, if it be exactly word for word? We answer, because the *unusual* construction in English, gives to a certain part of the idea, a prominence it does not possess in the familiar Greek phrase, whilst it keeps out of view a part of the idea which there most explicitly belongs to it. It has about it a speciality which keeps us from feeling, at first, that this is the usual Greek mode for saying a *man has a head ache*, or that *his head aches.* We put more in the thought than there really is. The pain *may be in his head*, or it may be on *account* of his head. By taking too the article merely as our article, we lose, on the other hand, the possessive sense which is clearly in the Greek usage, or construction, if not in the single word. The pain may be in somebody else's head, or on account of somebody else's head. The difference here may seem slight, yet if carried through all the varieties of expression which separate the two languages, and especially those of a more complicated structure, it becomes immense, making also a vast difference, not only in the ease with which we read the classics, but also in the spirit and feeling with which we read them, as well as in the quantity and quality of the thought we derive from them.

Before proceeding to reason on other positions furnished by our subject, we will take a few more examples, and these of the simplest kind, as more easily remembered, and just as well illustrating our main idea. Every scholar knows that one of the main peculiarities of the Greek language, consists in the varied use of its participle. It stands in the Greek grammar among the parts of speech, very much as it stands in our own; that is, its grammatical power and place resemble those of our own. The same definition would in general apply to it, as participating of the nature of an adjective and a verb. It is a compound of action and quantity. In theory, the grammatical difference is slight, in practice, however, it is very great. In Greek, the action element is greatly predominant; in English the qualifying, or epithetical, is its chief use. In Greek it claims affinity with the verb, and might with much propriety be reckoned among its forms. In English it holds a closer relationship with the other parent. Hence, as one might expect, it is much more frequent in the former language, and employed in a much greater variety both of forms and constructions. It is sometimes used for the verb itself. It not unfrequently conveys an assertion. It is sometimes the main or dominant word in a sentence; the verb, though grammatically governing, yet still performing only a qualifying and subordinate office, as in the phrases, ἐλάνθανε πράττων, "*He did it secretly.*" ὤχετο φεύγων. "*He fled away.*" οὐχ ἄν φθανοις ποιῶν. "*You could not be too quick about it.*" The participle often shows the method or manner, sometimes the reason of the action. It often indicates, moreover, a condition. It frequently expresses the time.

In this manner a great many participles are sometimes combined in one Greek sentence, each performing a different office, and this variety all heightened by the difference of tense as implying *description*, *narration*, *motive*, *reason*, or method of proceeding, according as such tense is continuous or aorist. Now to take such a sentence and render it according to the method condemned, word for word, that is, participle for participle throughout, would, in most cases be to the loss, not only of the force or vivacity, but often to the very ruin of the idea. It would be at the best, a most miserably poor, bald and pointless representation, to say nothing of the fact that it would not be simply poor English, but no English at all.

Nothing in teaching can be more painful, whether to the pupil or the teacher, than such a mode of rendering. It may be said the student has the meaning, but this apology is not true either in its application to translation, or to writing or speaking in general. What one can not *express*, he does not *know*. It may be a *feeling*, an instinct, it may be what some would call an inspiration,—it may be a very fine thing; but it is not *knowledge*. It is not entitled to this name until it lies before his own mind, and can be transmitted to other minds in "good forms of sound words," like "apples of gold in pictures of silver." But especially is this true in translating. No mind ever fully has a meaning, until it has the one best form of language to express it in. Until there come this one good form of sound words, there is ever a haze about the thought, and when the true light breaks in, and every part of the complex Greek sentence lies distinctly out, not only in uncouth solecisms of single English words, but in the choice corresponding English idioms, then there is felt a pleasure which mades it evident that, before this, the real sense or thought was not perceived, much less its full force and true accompanying emotion received into the soul.

Now it is this pressure on the mind of the student that makes the difficulty to which we have adverted, as one of the greatest obstacles to his progress. This false, cloudy, laborious method of construing, is ever in the way of that facility in taking the sense which is essential to pleasant and therefore, to extensive reading. It has pained our very soul, sometimes, to hear ingenuous pupils complain, and justly complain, of the long and toilsome difficulties in their way. Author after author is read, but each new one gives the same trouble. Each long sentence costs the same study. The lexicon, the grammar, the explanation of the text-book are ever in demand. Old words have to be looked up again and again, because the student cannot be certain that a different construction, or a different idiom, may not require a different meaning to be guessed out from among the multitude given in his dictionary. And so he goes on year after year, in the the same hopeless and even despairing road.

Now this need not be so. Greek is a clearer language in itself, than the English. Greek writers do certainly present their ideas more distinctly, or else they have more distinct ideas than English writers, even the best of them. Plato is more perspicuous than Sir William Hamilton; and even to come nearer home, we do not hazard much in saying that it is easier to get *sense*, clear sense, good sense, out of Demosthenes, or certainly out of Cicero, than from a modern speech in Congress. But the fact avails the student nothing, while pursuing this vicious method. When shall I, he exclaims in almost despair, when shall I be able to read Greek with something of the same ease with which I read English? What is in the way, that after years of faithful study I cannot read Euripides and Homer with something of the same satisfaction I find in reading Shakspeare and Milton! It can be done we say, if the right method is only taken. Shakspeare and Milton are more difficult authors, more obscure,—their thoughts, however sublime they may be, are not as vivid, not as clearly intelligible—their language though the best the English can afford, is far from being so radiant a vehicle of thought, so transparent to the very root and fibre, as the "burning words," in which lie so distinctly envisaged the ideas and emotions of the Grecian dramatist. And yet there is one best English expression for those ideas, but here lies the great difficulty. The student has never had it enjoined upon him, as his chief business in studying Greek, to seek that one best English mode of expression, and ever to employ it, however much it might vary from the Greek construction, until it presented itself spontaneously to his mind, and ran smoothly into the current of his thinking, and thus became as easy and as well remembered a representation of the corresponding Greek idiom, as ever single word in one language represented single word in another.

This might be done, had the student been ever accustomed, from the start, even from his first lesson in construing, to the simple common sense principle involved in the formula,—*idiom for idiom, this is the Greek mode of saying a thing, and this is the English mode of saying the same thing.* You see the teacher might say to the boy, they not only employ different sounds, or words, but different modes of combining them, varying sometimes slightly, sometimes widely, but in all cases it is your business, not only to know what Greek words correspond the nearest to what English words, and what Greek parts of speech to what English parts of speech; but also what English *idioms* are the best representatives of what Greek *idioms*, and always render accordingly. Otherwise you only learn one half, and the poorest half of what ought to be learned in the study of a language. You must not, therefore, translate ἄλγεῖ τὴν κεφαλὴν, "*he is in pain as to the head*," but *he has a head ache*, or "*his head aches.*" It is now translated, not into that barbarous dialect, the school boy English, but into good though plain English, into idiomatic English, all the better for being plain and idiomatic. We would even go so far as to say, that among different equivalents for a Greek sentence all of which might be good English, that should be preferred which is most markedly idiomatic, in order that the two languages might thereby exhibit each its own peculiar force, in the most direct, and, therefore, reciprocally suggesting contrast of expression.

So also, to use our other familiar examples, he should not be allowed to say, ὤχετο πλέων—"*He went away sailing*," which gives a turn to the thought that was never meant; (the Greek verb being here only a qualifying word of distance,) but "*he sailed away.*" So, ἐλάνθανε πράττων not "*he concealed doing it*," which gives hardly any idea at all; but "*he did it secretly*;" οἱ τύπτοντες, not "*those striking*," as the boys *will have* it; but "*they who strike*," making the rendering of this very common Greek construction of participle and article, by a verb with a relative pronoun, and allowing of no departure from the rule. It may seem a small matter, and a small difference, but we would recommend to a teacher never to allow a deviation even in so simple a case as this. There is no other way to make the practice habitual, so as to come without thinking, and thus secure the higher benefit which comes from rigidly carrying out the principle of idiom for idiom in the easiest, as well as in the most complicated cases. This little example occurs to our mind, because we know of hardly any thing in teaching Greek that we have had so frequently to repeat. Boys somehow get an inveterate habit of rendering the participle and the article in this clumsy way. Oἱ τύπτοντες, "*those striking*," they will say again and again, if corrected a dozen times in a recitation.

Nothing like patience; yet still, if the habit cannot be cured any other way, I would not hesitate to recommend a little of the old fashioned kind of moral suasion in the form of a slight application of τύπτω to the heedless delinquent. In other words, give him some of that same medicine that made Dr. Johnson such a capital Latin scholar. But to come back again to our familiar example,—as ἀλγέω represents our word to *ache*, and κεφαλὴ our word *head*; so the Greek idiom, or mode of speech, represents the English idiom. The idioms, are more exact equivalents than the single words; for what is lost or overruns in the failure of exact agreements between single words (and hardly any words exactly correspond in different languages, except the names for the merest outward things,) this overrunning in deficiency we say, may be, and generally is, exactly balanced in the antithetical correspondence of the two idiomatic combinations. In the process condemned, the student learns only that certain English words represent, or nearly represent, certain Greek words. On the other method, he learns another and more important fact, the *idiomatic equivalence.* In the vicious mode of *construing*, this is kept entirely out of sight. The English idiom is unthought of, of course; the Greek idiom *which can only be learned by contrast* is unknown as an idiom, and thus the student may go on for years and years without knowing it, or thinking about it, because there has been no such contrast of opposing constructions, as well as differing words, to call it to mind. In carrying out such a method of reading, the English peculiarities are all sacrificed to the Greek, and hence, the Greek itself is unknown in all those higher elements which characterize it in distinction from the English.

But in the Latin method there is a further and more important advantage. It is this. The sentence has a double hold upon the memory. As word suggests word, and helps to remember it, so idiom suggests idiom; and this is the stronger mnemonical power, because more directly connected with the combinations of idea than with the mere associations of sounds. It belongs to a deeper department of the soul, below the mere sense or conceptual memory, and hence, this suggesting contrast of idioms, may remain much longer than the mere verbal association that connects κεφαλὴ and head, or ἄλγος and pain. It will come more readily back if one should have become rusty in a language, as is sometimes said; and the idiomatic forms thus coming back will the more easily bring back with them the single words which are but the filling up. Let a man have once learned Greek as he ought, and he will find no great difficulty in recovering it, even although he may have forgotten almost all the words.

(To be continued.)

VI. EDUCATIONAL BIOGRAPHY.

Hail! tolerant teachers of the race, whose dower
Of spirit-wealth outweighs the monarchs might,
Blest be your holy mission! may it shower
Blessings like rain, and bring by human right
To all our hearts and hearths, love, liberty, and light.

We propose to devote a portion of our columns from time to time, to a series of Biographical Sketches of Eminent Teachers and Educators, who in different ages and countries, and under widely varying circumstances of religion and government, have labored faithfully and successfully in different allotments of the great field of human culture. We hope to do something in this way to rescue from unmerited neglect and oblivion the names and services of many excellent men and women, who have proved themselves benefactors of their race by sheding light into the dark recesses of ignorance and by pre-occupying the soil, which would otherwise have been covered with the rank growth of vice and crime, with a harvest of those virtues which bless, adorn, and purify society. Such men have existed in every civilized state in past times. "Such men," remarks Lord Brougham, "men deserving the glorious title of teachers of mankind, I have found laboring conscientiously, though perhaps obscurely, in their blessed vocation, wherever I have gone. I have found them, and shared their fellowship, among the daring, the ambitious, the ardent, the indomitably active French; I have found them among the persevering, resolute, industrious Swiss; I have found them among the laborious, the warm-hearted, the enthusiastic Germans; I have found them among the high-minded but enslaved Italians; and in our own country, God be thanked, their numbers every where abound, and are every day increasing. Their calling is high and holy; their fame is the property of nations; their renown fill the earth in after ages, in proportion as it sounds not far off in their own times. Each one of these great teachers of the world, possessing his soul in peace, performs his appointed course, awaits in patience the fulfillment of the promises, resting from his labors, bequeathes his memory to the generation whom his works have blessed, and sleeps under the humble, but not inglorious epitaph, commemorating 'one in whom mankind lost a friend, and no man got rid of an enemy!'"

We cannot estimate too highly the services rendered to the civilization of New England, by her early teachers, and especially the teachers of her Town Grammar Schools. Among these teachers we must include many of her best educated clergymen, who, in towns where there was no endowed Free or Grammar School, fitted young men of piety and talent for college, and for higher usefulness in church and state. To her professional teachers and clergy it is due, that schools of even an elementary grade were established and maintained. But for them the fires of classical learning, brought here from the Public Schools and Universities of England, would have died out, the class-rooms of her infant colleges would have been deserted, her parishes would have ceased to claim a scholar for their minister, the management of affairs in town and state would have fallen into incompetent hands, and a darkness deeper than that of the surrounding forests would have gathered about the homes of the people. In view of the barbarism into which the second and third generations of new colonies seem destined to fall, "where schools are not vigorously encouraged," we may exclaim with the Rev. Dr. Mather—

"'Tis Corlet's pains, and Cheever's, we must own,
That thou New England, are not Scythia grown.'

Let us then hasten to do even tardy justice to these master builders and workmen of our popular civilization. In the language of President Quincy, when about to review the History of Harvard College for a period of two centuries—"While passing down the series of succeeding years, as through the interior of some ancient temple, which displays on either hand the statues of distinguished friends and benefactors, we should stay for a moment in the presence of each, doing justice to the humble, illustrating the obscure, placing in a true light the modest, and noting rapidly the moral and intellectual traits which time has spared; to the end that ingratitude the proverbial sin of republics, may not attach to the republic of letters; and that, whoever feeds the lamp of science, however obscurely, however scantily, may know, that sooner or later, his name and virtues shall be made conspicuous by its light, and throughout all time accompany its lustre."

We commence our Educational Biography—as we propose to designate the series—with a Sketch, such as we have been able to draw up from scanty materials, gleaned from torn and almost illegible records of town, and church, and from scattered items in the publications, pamphlets, and manuscripts of Historical Societies, Antiquarians, and Genealogists—of Ezekiel Cheever, the Father of Connecticut School-masters, the Pioneer, and Patriarch of elementary classical culture in New England.

VII. BIOGRAPHY OF EZEKIEL CHEEVER,

WITH NOTES

ON THE EARLY FREE, OR GRAMMAR SCHOOLS OF NEW ENGLAND.

EZEKIEL CHEEVER, the son of a linen draper of London, was born in that city on the 25th of January, 1614. Of his education and life in England, we find no mention; or any memorial except copies of Latin verses,* composed by him in London, between the years 1631 and 1637, and manuscript dissertations, and letters written in Latin, now in the Boston Athæneum. The pure Latinity of these performances, indicate that he enjoyed and improved no ordinary opportunities of classical training. He came to this country in 1637, landing at Boston, but proceeding in the autumn of the same, or the spring of the following year, with Theophilus Eaton, Rev. John Davenport, and others, to Quinnipiac, where he assisted in planting the colony and church of New Haven—his name appearing in the "Plantation Covenant," signed in "Mr. Newman's Barn," on the 4th of June, 1639, among the principal men of the colony. He was also chosen one of twelve men out of "the whole number thought fit for the foundation work of a church to be gathered," which "elect twelve" were charged "to chose seven out of their own number for the seven pillars of the church," that the Scripture might be fulfilled "*Wisdom hath builded her house, she hath hewn out her seven pillars.*"

From various considerations it is thought that he held the office of deacon in the first church of New Haven, from 1644 to 1650, and sometimes conducted public worship. In May 1647, among other "gross miscarriages," charged upon one "Richard Smoolt, servant to Mrs. Turner," —for the aggregate of which he was "severely whipped," was his 'scoffing at the Word of God,' as preached by Mr. Cheevers." He was held in such esteem by the "free burgesses," as to be elected one of the "Deputies" from New Haven, to the General Court in October 1646.

He commenced there his career as a schoolmaster in 1638, which he continued till 1650, devoting to the work a scholarship and personal character which left their mark for ever on the educational policy of

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* "A Selection from the Poems of Cheever's Manuscripts" appended to an edition of Rev. Dr. Mather's CORDERIUS AMERICANUS, or Funeral Sermon upon Mr. Ezekiel Cheever, published in Boston, by Dutton and Wentworth, 1828.

New Haven.* His first engagement was in the only school, which was opened within the first year of the settlement of the colony, to which the "pastor, Mr. Davenport, together with the magistrates," were ordered "to consider what yearly allowance is meet to be given to it out of the common stock of the town." In 1641, a second and higher grade of school was established, under Mr. Cheever's charge, to which the following order of the town meeting refers:

> "For the better training of youth in this town, that, through God's blessing, they may be fitted for public service hereafter, in church or commonwealth, it is ordered that a free school be set up, and the magistrates with the teaching elders are entreated to consider what rules and orders are meet to be observed, and what allowance may be convenient for the schoolmaster's care and pains, which shall be paid out of the town's stock."

By Free Schoole† and Free Grammar School,‡ as used in this extract, and in the early records both of towns and the General Court in Connecticut and Massachusetts, was not intended the Common or Public School,

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* To the bright example of such a teacher, and especially to the early, enlightened, and persevering labors of the Rev. John Davenport, the first pastor of the first Church of New Haven, and of Theophilus Eaton, the first Governor of the Colony, is New Haven indebted for the inauguration of that educational policy which has made it a *seat of learning* from its first settlement for the whole country. The wise forecast and labors of these men contemplated, and to some extent realized; 1. Common Town Schools, where "all their sons may learn to read and write, and cast up accounts, and make some entrance into the Latin tongue." 2. A Common, or Colony School, with "a schoolmaster to teach the three languages, Latin, Greek, and Hebrew, so far as shall be necessary to prepare them for the college." 3. A Town or County Library. 4. A College for the Colony, "for the education of youth in good literature, to fit them for public service in church and commonwealth." The whole was made morally certain by the employment of good teachers from the start. After the retirement of Mr. Cheever from the school, the records of the Town are full of entries showing the solicitude of the Governor and Minister in behalf of the schools and the education of the children and youth. Under date of Nov. 8, 1652: "The Governor informs the court that the cause of calling this meeting is about a schoolmaster," that "he had written a letter to Mr. Bower, who as a schoolmaster at Plymouth, and desires to come into these parts to live, and another letter about one Rev. Mr. Landson, a scholar, who he hears will take that employment upon him," —and "that now Mr. James was come to town, who would teach the boys and girls to read and write"—"and there would be need of two schoolmasters—for if a Latin scholmaster come, it is found he will be discouraged, if many English scholars come to him." About the same date: "The town was informed that there is some motion again on foot concerning the setting up of a College here at New Haven, which, if attained will in all likelihood, prove very beneficial to this place"—"to which no man objected but all seemed willing." At a General Court of the Colony, held at Guilford, June 28, 1652, "it was thought [the establishment of a college for New Haven Colony] to be too great a charge for us of this jurisdiction to undergo alone. But if Connecticut do join, the planters are generally willing to bear their just proportion for creating and maintaining of a college there [New Haven]." "At a town meeting, held February 7, 1667 ['8], Mr. John Davenport, Senior, came into the meeting, and desired to speak something concerning the [Grammar] school; and first propounded to the town, whether they would send their children to the school, to be taught for the fitting them for the service of God, in church and commonwealth. If they would, then, the grant [made by Mr. D. in 1660, as Trustee of the Legacy of Gov. Hopkins] formerly made to this town, stands good; but, if not, then it is void: because it attains not the end of the donor. Therefore, he desired they would express themselves." Upon which several townsmen declared their purpose "of bringing up one or more of their sons to learning," and as evidence of the sincerity of their declaration, and of the former efforts of Gov. Eaton and Mr. Davenport, in favor of liberal education, Prof. Kingsley in his Historical Discourse, on the 200th Anniversary of the First Settlement of the Town, remarks:—"Of the graduates of Harvard College, from its foundation to year 1700 [the founding of Yale College], as many as one in thirty, at least, were from the town of New Haven"—with a population, so late as the year 1700, of only five hundred persons.—*See Barnard's History of Education in Connecticut*, 1833.

† The first establishment of the FREE SCHOOL—or School for the gratuitous instruction of poor

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children can be traced back to the early ages of the Christian Church. Wherever a missionary station was set up, or the Bishops' residence or Seat [*cathedra*, and hence Cathedral] was fixed, there gradually grew up a large ecclesiastical establishment, in which were concentrated the means of hospitality for all the clergy, and all the humanizing influences of learning and religion for that diocese or district. Along side of the Cathedral, and sometimes within the edifice where divine worship was celebrated, "a song scole," where poor boys were trained to chant, and the "lecture scole," where clerks were taught to read the sacred ritual, and in due time the "grammar school" when those who were destined for the higher services of church and state were educated according to the standard of the times, were successively established. The monasteries were also originally seats of learning, as well as places of religious retirement, of hospitality for the aged and infirm, and of alms for the poor of the surrounding country. Their cloister schools were the hearth-stones of classical education in every country of Europe, and were the germs of the great Universities, which were encouraged and endowed by learned prelates and beneficient princes for the support and exaltation of the Christian faith and the improvement of the liberal arts. But for the endowments and the ordinances and recommendations of early synods and councils, these schools might have been accessible only to the children of the titled and the wealthy. The council of Lyons in 1215, decreed "that in all cathedral churches and others provided with adequate revenues, there should be established a school and a teacher by the bishop and chapter, who should teach the clerks and poor scholars gratis in grammar, and for this purpose a stipend shall be assigned him;" and the third council of Lateran still earlier ordained—"that opportunity of learning should not be withdrawn from the poor, who are without help from patrimonial riches, there shall be in every cathedral a master to teach both clerks and poor scholars gratis." In the remodelling of the cathedral establishments, and the demolition of the monasteries by Henry VIII., and his successors, several of the cathedral schools were provided for, and Royal Grammar Schools founded out of the old endowments.—*See Barnard's National Education in Europe.*

‡ The names, by which the various educational institutions in the colonies were designated in the early records and laws on the subject, were adopted with the institutions themselves from the fatherland, and must be interpreted according to the usage prevailing there at the time. By a *Grammar School*—whether it was a continuation of the old Grammar School of the Cathedral, or the Cloister School of the Monastery, in some cases dating back even beyond the reign of Alfred—or newly endowed by Royal Authority out of the spoils of the religious houses, by Henry VIII., Elizabeth, or Edward VI.—or established by benevolent individuals afterwards—was meant a school for the teaching of Greek and Latin, or in some cases Latin only, and for no other gratuitous teaching. A few of the poor who were unable to pay for their education were to be selected—some according to the parish in which they were born or lived, some on account of the name they bore,—and to receive instruction in the learned languages, and under certain conditions to be supported through the university. These Public Grammar schools were thus the nurseries of the scholars of England, and in them the poor and the rich, to some extent enjoyed equal advantages of learning, and through them the way to the highest honors in the state, and the largest usefulness in the church was opened to the humblest in the land.—*See Barnard's National Education in Europe.*

"*Considerations concerning Free Schools as settled in England*" by Christopher Wase, published in Oxford, 1678. Carlisle's "*Endowed Grammar Schools in England and Wales*," 2 vols, London, 1818. Ackermanns," *History of the Principal Schools of England*," London, 1816. Parliamentary Reports of Commissioners to enquire into the Endowed Charities of England and Wales from 1826 to 1850.

The Free Schools of England were originally established in towns where there was no old Conventual, Cathedral, Royal or Endowed Grammar School. With very few exceptions these schools were founded and endowed by individuals, for the teaching of Greek, and Latin, and for no other gratuitous teaching. The gratuitous instruction was sometimes extended to all the children born or living in a particular parish, or of a particular name. All not specified and provided for in the instruments of endowment paid tuition to the master.

The total value of Endowed Charities for Education in England and Wales, including the Grammar and Free Schools, and excluding the Universities and Great Public Schools of Eton, &c., according to a late report of the Commissioners for Inquiry into their condition, is returned at £75 000.000, and the annual income at £1.209.395, which, by more judicious and faithful management, it is estimated, can be raised to £4 000.000, or $20.000 000 a year.—*Barnard's National Education in Europe*, P. 736.

as afterwards developed, particularly in Massachusetts, supported by tax, and free of all charge to all scholars rich and poor; neither was it a Charity School, exclusively for the poor. The term was applied here, as well as in the early Acts of Virginia* and other states, in the same sense, in which it was used in England, at the same and much earlier dates, to characterize a Grammar School unrestricted as to a class of children or scholars specified in the instruments by which it was founded, and so supported as not to depend on the fluctuating attendance and tuition of scholars for the maintenance of a master. In every instance in which we have traced their history, the "free schools" of New England[‡] were endowed by grants of land, by gift and bequests of individuals, or by "allowance out of the common stock of the town," were designed especially for instruction in Latin

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* The Virginia Company in 1619, instructed the Governor for the time being to see "that each Town, Borough, and Hundred procured, by just means, a certain number of their children, to be brought up in the first elements of literature: that the most towardly of them should be fitted for college, in the building of which they proposed to proceed as soon as any profit arose from the estate appropriated to that use; and they earnestly required their utmost help and furtherance in that pious and important work." In 1621, Mr. Copeland, chaplain of the Royal James, on her arrival from the East Indies, prevailed on the ships company to subscribe £100 toward "a free schoole," and collected other donations of money and books for the same purpose. The school was located in Charles City, as being most central for the colony, and was called "*The East India School.*" The company allotted 1000 acres of land, with five servants and an overseer, for the maintenance of the master and usher. The inhabitants made a contribution of £1500 to build a house, &c.

A second Free School was established in Elizabeth City in 1642; although Gov. Berkeley, in 1670, in reply to the Question of the Commissioners of Foreign Plantations, "what course is taken about instructing the people within your government in the Christian religion; and, what provision is there made for the paying of your ministry?" answered as follows: —

"The same course that is taken in England out of towns; every man, according to his ability, instructing his children. We have forty-eight parishes, and our ministers are well paid, and, by my consent, should be better, if they would pray oftener, and preach less. But, of all other commodities, so of this, the worst are sent us, and we have had few we could boast of since the persecution in Cromwell's tyranny drove pious, worthy men here. But, I thank God, there are no free schools, nor printing, and, I hope we shall not have these hundred years; for, learning has brought disobedience, and heresy, and sects into the world, and printing has divulged them, and libels against the best government. God keep us from both!"

To the same question the Governor of Connecticut, replied: "Great care is taken for the instruction of the people in the Christian Religion, by the ministers catechising of them and preaching to them twice every Sabbath day, and sometimes on Lecture days, and also by masters of families instructing and catechising their children and servants, being required so to do by taw. There is in every town, except one or two new towns a settled minister, whose maintenance is raised by rate, in some places £100, in some £90, &c." In a subsequent answer to similar questions the Governor states that one-fourth of the annual revenue of the Colony, "is laid out in maintaining free [common] schools for the education of our children."

The first school established in Manhattan [New York], was by the West India Company, in 1633. This was an Elementary Parochial School under the management of the deacons of the Dutch Church, and is still continued. The first "Latin Schoolmaster" was sent out by the Company in 1659. In 1702 a "Free Grammar School" was partially endowed on the King's farm; and in 1732 a "Free School for teaching the Latin and Greek and practical branches of mathematics" was incorporated by law. The bill for this school, drafted by Mr. Phillipse, the Speaker, and brought in by Mr. Delancey, had this preamble; "Whereas the youth of this Colony are found by manifold experience, to be not inferior in their natural geniuses, to the youth of any other country in the world, therefore be it enacted, &c."—*See Dunshee's History of the School of the Reformed Protestant Dutch Church.* 1853. *Smith's History of New York.*

The first school Act of Maryland was passed in 1694, and is entitled a "Supplicatory Act to their sacred Majesties for erecting of Free Schools," meaning thereby the endowment of "schools, or places of study of Latin, Greek, writing, and the like, consisting of one master, one usher, and one writing master," &c.

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[*] The earliest mention of the establishment of "free schools" by Gov. Winthrop, in his History of New England, is under date of 1645, in the following language: "Divers free schools were erected, as at Roxbury, (for maintainance whereof every inhabitant bound some house or land for a yearly allowance for ever) and at Boston (where they made an order to allow 50 pounds to the master and an house, and 30 pounds to an usher, who should also teach to read, and write, and cipher, and Indians' children were to be taught freely, and the charge to be by yearly contribution, either by voluntary allowance, or by rate of such as refused, etc., and this order was confirmed by the general court [blank]. Other towns did the like, providing maintainance by several means." Savage's Winthrop, Vol. II, p. 215.

We know by the original documents published by Parker in his "Sketch of the History of the Grammar School in the Easterly Part of Roxbury," the character of the Free School erected in that town. It was an endowed Grammar School, in which "none of the inhabitants of the said town of Roxbury that shall not join in this act (an instrument, or subscription paper, binding the subscribers and their estates for ever to the extent of their subscription "to erect a free schoole" "for the education of their children in Literature to fit them for publicke service, bothe in the Churche and Commonwealthe, in succeeding ages,") with the rest of the Donors shall have any further benefit thereby than other strangers shall have who are not inhabitants." The school thus established was a Grammar School, as then understood in England, and was *free* only to the children of those for whom, or by whom it was endowed, and only to the extent of the endowment. This school, although not till within a few years past a Free School, or part of the system of Public Schools, according to the modern acceptation of the term, has been a fountain of higher education to that community and the state.

The early votes establishing and providing for the support of the "free schools" in Boston, as well as in other towns in Mass., while they recognize, by grants of land and allowance out of the common stock, the interest and duty of the public in schools and universal education, also provide for the payment by parents of a rate or tuition. Among the earliest assignments of lands in Boston was a "garden plott to Mr. Danyell Maude, schoolemaster," in 1637; a tract of thirty acres of land at Muddy Brook, (now part of Brookline), to Mr. Perment, (or Permont, or Porment,) who, in 1635, was "intreated to become scholemaster for the teaching and nurturing of children with us." In 1641, "it is ordered that Deare Island be improved for the maintenance of Free Schoole for the towne." In 1654, "the ten pounds left by the legacy to yᵉ schoole of Boston, by Miss. Hudson, deceased," is let to Capt. Olliver. Under date of August 6, 1636, there is, in the first volume of the Town Records of Boston, a subscription "towards the maintenance of free schoolemaster, Mr. Daniel Maude, being now chosen thereunto." In the provision made in 1645, it is provided that "Indian children shall be taught gratis;" implying that tuition was, or might be, exacted from all others. In 1650, "it is also agreed on that Mr. Woodmansy, yᵉ schoolmaster, shall have fifty pounds p. an. for his teaching yᵉ schollars, and his p. portion to be made up by rate." In a vote passed 1682, authorizing the selectmen to establish one or more "free schools to teach children to write and cypher"--the Committee with the Selectmen allow £25 per annum for each school, "and such persons as send their children to school (that are able) shall pay something to the master for his better encouragement in his work."

Mr. Felt in his Annals of Salem, has given transcripts from the records of that town, which show the gradual development of the Free School, from an endowed school, devoted principally to preparing young men for college, and free only to poor but bright children, who gave promise of becoming good scholars—into a system of public schools, for children of all ages, and of every condition and prospects in life, supported entirely by property tax or public funds In 1641, at the Quarterly Court, Col. Endicott moved "a ffree skoole and therefore wished a whole town meeting about it." In 1644 it is "Ordered that a note be published one the next lecture day, that such as have children to be kept at schoole, would bring in their names and what they will giue for one whole yeare and, also, that if any poore body hath children or a childe, to be put to schoole and not able to pay for their schooling, that the towne will pay it by a rate" In 1670, the selectmen are ordered "to take care to provide a Grammar school master, and agree with him for his mayntenance." He was to have £20 a year from the town, and "half pay for all scollers of the towne, and whole pay from strangers." In 1677, "Mr. Daniel Eppes is called to bee a grammar schoolemaster," "provided hee may haue what shall be annually allowed him, not be a town rate, butt in and Greek, and were supported in part by payments of tuition or rates by parents. These schools were the well-springs of classical education in this country, and were the predecessors of the incorporated Academies which do not appear under that name until a comparatively recent period.

The only Free Schools provided for in the early legislation of Connecticut were town or county Grammar Schools, to prepare young men for college; and instruction in these schools was not gratuitous. "Beyond the avails of any grant of land, endowment, legacy, or allowance from the common stock," parents, who were able, were assessed a certain rate according to the number and time of attendance of children sent. Thus, under the order of the town-meeting of New Haven, in 1641, above cited, "twenty pounds a year was paid to Ezekiel Cheevers, the present school-master, for two or three years, at first. But that not proving a competent mayntenance, in August, 1644, it was enlarged to thirty pounds a yeare, and so continueth;" and, that this allowance was not all that the school-master received is evident from the following entry, under date of July 8, 1643: "Mr. Cheevers desired 4 – 3 – 6 out of the estate of Mr. Trobridge, wch is justly due to him for teaching of children." This mode of supporting schools was continued in Connecticut in respect to public schools of every grade; a mode which recognizes at once the duty of the parent or guardian of children, and of the public, and encourages endowments so far as not to weaken the sense of parental and public responsibility as to education. Under this system, for one hundred and fifty years prior to the beginning of the present century, Connecticut solved the great problem of universal education so that in 1800 a

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some other suteable way." In 1699, "each scholar is to pay 12d a month, and what this lacked should be made up out of the "funds sett apart for y^{e} Grammar schoole." In 1713, "the committee perceiving that 2^{s} a quarter for each boy of the Latin and English schools, in the body of the town, was insufficient, agreed that it should be 2/6 in money, payable at the commencement of the term. Every 'scholar that goes in the winter, to find three feet of wood, or to pay to their masters 4/6 in money, to purchase wood withal.'" In 1729, "Samuel Brown grants unto the Grammar school in Salem, to be kept in or near the town house street, £120 passable money, to make the same a free school, or towards the educating of eight or ten poor scholars, yearly, in the Grammar learning or the mathematics, viz: the mariner's art; the interest thereof to be improved only for that end forever, as a committee, chosen by the town of Salem, for the taking care of said school may direct, with the advice of the minister or ministers of the first church and myself or children or two of the chief of their posterity. Mr. Brown then stated, that he gave £60 to the English school so that its income might be applied 'towards making the same a free school, or for learning six poor scholars;' and a like sum 'to a woman's school, the interest thereof to be yearly improved for the learning of six very poor children their letters and to spell and read, who may be sent to said school six or seven months in the year.' He required, that the two last donations should be managed by the same trustees as the first." By slow degrees the system was expanded so as to embrace Evening Schools for children who cannot attend the day Schools, Primary Schools for young children, Intermediate Schools, English High Schools for Girls, English High School for Boys, and a Latin School.

family, "which had suffered so much barbarism as not teach by themselves or others, their children and apprentices so much learning as may enable them to read the English tongue," or even an individual "unable to read the Holy Word of God, and the good laws of the Colony," was not to be met with.*

Mr. Cheever removed to Ipswich, in Massachusetts, in November, 1650, and took charge of the Grammar School, which was established and supported in the same manner as similar schools in other parts of New England. Public spirited individuals made donations, and the Town early set apart land "toward the building and maintaining of a Grammar Schoole and schoole-master," and in 1652 appointed a committee "to disburse and dispose such sums of money as haye or may be given" for these objects, with power to enlarge the maintainance of the master, "by appointing from yeare to yeare what each scholar shall yearly or quarterly pay or proportionably." Of his labors here as a teacher, we have been able to gather no memorial—except that from an entry† under date of 1661, it appears that his agricultural operations required a barn, and that he planted an orchard on his homestead—thereby improving the soil of Ipswich as well as the souls of her children, by healthy manual labor. It is to be regretted that the early practice of attaching a house for the occupancy of the master, with a few acres of land for garden, orchard, and the feeding of a cow, adopted with the school from the old world, was not continued with the institution of new schools, down to the present time. It would have given more of professional permanence to the employment of teaching, and prevented the growth of that "barbarism of boarding round," which is still the doom of the teacher in District Schools in many parts of New England, and operates very powerfully to drive men with families from the service of the public schools.

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* That the same system of Common or Public Schools prevailed in Massachusetts, is not only evident from the early records of Boston, Ipswich, Roxbury, Charlestown, and Salem and other towns in that colony, but it is expressly provided for in the first formal order on the subject of schools, enacted in 1647—"It is therefore ordered y^{t} every towneship in this jurisdiction after y^{e} Lord hath increased y^{m} to y^{e} number of 50 housholders shall then forthwith appoint one within their towne to teach all such children, as shall resort to him to write and reade, whose wages shall be paid either by y^{e} parents or masters of such children, or by y^{e} inhabitants in generall by way of supply, as y^{e} maior part of those y^{t} order y^{e} prudentials of y^{e} towne shall appoint, provided those y^{t} send their children be not oppressed by paying much more y^{n} they can have y^{m} taught for in other townes."

From that time to the present, the laws of the Colony and the State, have made it obligatory on towns to establish and sustain schools, but for near a century and half left them free as to the mode of paying the teacher and providing the incidental expenses of the school. Even after it was made compulsory on the town to keep a literally free school for a certain number of months in each year, out of a tax collected with other taxes of the town, the same school in a majority of the country districts was continued as a subscription or pay school under the same teacher, by the payment by parents of a certain rate for the number of scholars sent. The term of the free school was also prolonged by the system of boarding the teacher round in the families of the district, and by contributions of a certain quantity of wood for each scholar.

† "The barn erected by Ezekiel Cheever, and the orchard planted by him, were after his removal to Charlestown, bought by the feofees, [committee and trustees of the Grammar School] and presented for the use of the master."—*Felt's History of Ipswich.*

In November, 1661, Mr. Cheever, after making the Free School at Ipswich "famous in all the country," and thereby, according to Dr. Bentley, making that town rank in literature and population above other towns in the county of Essex, removed to Charlestown, where early efforts had been made to establish a Town Free School, by granting, in 1647, "a rate of fifteen pounds to be gathered of the town," and by the rents of the island," and of "Mystik Wear." Of his labors here we find but scanty memorials. Even in these early days the schoolmaster was not always paid his pittance in due season; did not always find his school-house in good repair, and had reason to complain that other masters "took his scholars," and thereby doubtless diminished his income from rates or quarter bills. On the 3d November, 1666, Mr. Cheever presented the following "motion" to the selectmen:

> "First, that they would take care the school house be speedily amended because it is much out of repair.
>
> Secondly, that they would take care that his yearly salary be paid, the constables being much behind with him.
>
> Thirdly, putting them in mind of their promise at his first coming to town, viz. that no other schoolmaster should be suffered, or set up in the town so as he could teach the same, yet now Mr. Mansfield is suffered to teach and take away his scholars."[*]

After laboring nine years at Charlestown, Mr. Cheever moved over to Boston, Jan. 6th, 1670, where his labors were continued for eight and thirty years—commencing from a period of life when most modern teachers break down. The manner of his engagement to teach the "Free Schoole," which has been known since 1790, as the Latin School,[*] of Boston, is thus recorded, under the date 22. 10th (December) 1670: "At a Meetinge of the honrd. Govern^{r}. Richard Bellingham, Esq. Major Generall John Leveret, Edward Tynge Esq^{r} Majestrates, Mr. John Mayo, Mr. John Oxenbridge, Mr. Thomas Thatcher, and Mr.

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[*] Frothingham's History of Charlestown, p. 157. In the same year Mr. Frothingham gives an Order of the Selectmen relative to the behavior of children on the Lord's Day, in which Mr. Cheever is introduced: "We judge it our duty to commend it as our affectionate desire to all our inhabitants, concerned herein to further us with their cheerful endeavors, and that each person whom we nominate would in his term sit before the youths pew on Lords day during the morning and evening exercise. It being our joint expectation that all youths under fifteen years of age unless on grounded exemption by us, do constantly sit in some one of those three pews made purposely for them. It is our desire that all parents and governors will require their children and servants of the capacity aforesaid to sit and continue orderly in those pews except mr. Cheevers scholars, who are required to sit orderly and constantly in the pews appointed for them together. It is moreover commended to the conscientious care and endeavour of those that do sit before the youths pews Lords days to observe their carriage, and if any youth shall carry it rudely and irreverently to bring them before one of our magistrates with convincing testimony that due course may be taken with them for the discouragement of them and any others of like profane behavior."

James Allen Eld^{rs}, Capt. Thomas Lake, Capt. Jamss Olliver, Mr. John Richards, and John Joyliffe selectmen of Bostone. It was ordered and agreed that Mr. Ezechiell Chevers, Mr. Tomson & Mr. Hinksman should be at the Govern^{rs} house that day sevennight to treate with them concerninge the free schoole." "At a Meetinge of the same gentlemen" as above, with the addition of Mr. Hezekiah Usher, "it was agreed and ordered that Mr. Ezechiell Cheevers should be called to & installed in the free schoole as head Master thereof, which he, being then present, accepted of: likewise that Mr. Thomson should be invited to be an assistant to Mr. Cheevers in his worke in the schoole; wh^{ch} Mr. Tompson, beinge present, desired time to consider of, and to give his answere;—And upon the third day of January, gave his answer to Major Generall Leverett in the negative, he havinge had and accepted of, a call to Charlestowne." On the 6th day of the next month, the same honorable gentlemen, excepting Mr. Usher, "beinge met repaired to the schoole and sent for Mr. Tompson who, when he came, declared his removall to Charlestowne —and resigned up the possestion of the schoole and schoole house to the Govern^{r} &ca, who delivered the key and possestion of the schoole house to Mr. Ezechiell Cheevers as the sole Mast^{r}. thereof. And it was farther agreed that the said Mr. Cheevers should be allowed sixtie pounds p. an. for his seruice in the schoole, out of the towne rates, and rents that belonge to the schoole—and the possestion, and use of y^{e} schoole house."

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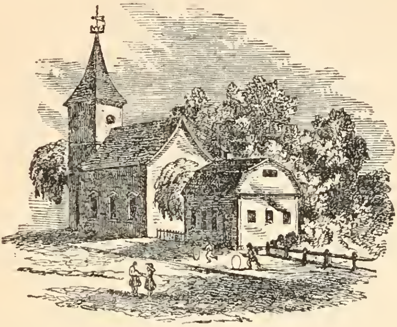
* The foregoing transcript from the Town Records are printed from Gould's "*Account of the Free Schools in Boston*," first published in the "Prize Book, No. IV., of the Publick Latin School," in 1823. Mr. Gould (Benjamin A.) was, for twenty-eight years, (1814 to 1838), head master of this school; and, under his administration, it rose from a temporary depression to which it had been gradually falling under his predecessor, into a high state of efficiency, from which it has never again declined. He is still living in the enjoyment of a green old age, which seems to have descended as an heir-loom from Master Cheever to his successors. His Account of the System of Public or Free Schools in Boston was a valuable contribution to the educational literature of the day, and helped to raise public attention in other cities of the state and country to a higher standard of popular education than had been reached or regarded as practicable out of Boston.

The History of "the Free Schools," the public schools and other means of Popular Education generally in Boston, from its first inception in the entreating of "Brother Philemon Pormont to become schoolmaster for the teaching and nurturing of children" in 1634, the setting apart of grants of land, and allowances from the common stock, the protection of trust estates and bequests for school purposes, and the raising of additional maintainance by subscription in 1636 to reduce the rate of tuition in higher, as well as elementary instruction—through all the stages of progress,—the introduction of the dame School, Grammar School, Charity School, Writing School, the admission of girls as well as boys, the Primary School, the English High School, and the Normal School,—the Reformatory and Farm School—the Library,—Social, Incorporated, and Free,—the Public Press, from the Newsletter of 1704, to the Quarterly, Monthly, Weekly, and Daily issue,—the Debating Class and Public Lecture in all their agencies and helps of self-education and social and literary amusement, as well as of scientific research—a History of Public Schools and Popular Education in Boston from 1630 to 1855, embracing a connected view of all the institutions and agencies which supply the deficiency, and determine the character of the instruction given in the Homes and the Schools of a people, would be one of the most valuable contributions, which could be made to the HISTORY OF AMERICAN CIVILIZATION and the PROGRESS OF SOCIETY

The SCHOOL HOUSE into which Mr. Cheever was installed as the "sole Master," by the Honourable Govenor, and Magistrates of the Colony, the Elders of the Churches, and Selectmen of the Town of Boston, and in which he continued to sway "the rod of empire" for thirty-five years over "govenors, judges, ministers, magistrates, and merchants yet in their teens," is thus represented.*



The SCHOOL itself under his long, faithful, and distinguished services became the principal classical school not only of Massachusetts Bay, but according to Rev. Dr. Prince, "of the British Colonies, if not of all America."

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* For this vignette of Mr. Cheever's School-house, we are indebted to the Rev. Edward E. Hale, of Worcester.

"Cheever's school-house occupied land on the North side of School street, nearly opposite the present Horticultural Hall. It was large enough to contain one hundred and fifty pupils. At the present time, the east wall of the Stone Chapel stands on the site of the old building, which was removed, after much controversy, to make room for the building of the Chapel, in 1748. The outline of the old building, and some general sketch of its appearance appear on an old map of Boston, dated 1722, of which, a copy is now in possession of Mr. Pulsifer, of Boston. On this map, every building was represented, on the spot it occupied, with some effort at precision. From this map Cheever's school-house is represented in this sketch. King's Chapel is drawn from a view of more pretensions, representing the whole town, from a point above the harbor, in 1744. In that view, unfortunately, Cheever's school-house does not appear. As King's Chapel was materially enlarged in 1710, it has been represented here as being, in Cheever's time, somewhat shorter than in the authority alluded to. In an early print, described by Dr. Greenwood, a crown was represented below its vane, which has, therefore, been placed there in this sketch."

Mr. Gould introduces into his notice of the controversy which attended the removal of the old school house, to make room for an enlargement of the church, the following impromptu epigram written by Joseph Green, Esqr., and sent to Mr. Lovell in the School, when it was announced that the town had agreed to grant permission to the proprietors of King's Chapel to take down the old house.

A fig for your learning: I tell you the Town,
To make the *church* larger, must pull the *school* down.
Unluckily spoken, replied Master Birch—
Then *learning*, I fear, stops the growth of the *Church.*

We are also indebted to the Rev. Edward Everett Hale, for the opportunity of consulting his own "*Notes for a History of the Latin School of Boston*," [in which he has transcribed one of Cheever's Latin Dissertations from the "Cheever Manuscripts," in the Massachusetts Historical Society, and a synopsis of the rest, as well as a letter in Latin to his son, afterward the Rev. T. Cheever, of Marblehead, who had asked his consent to marry a young lady of Salem,] and other valuable memoranda and assistance.

Some light is thrown on the internal economy of the school under Mr. Cheever's charge, of the age at which pupils were admitted, the motives to study and good behavior appealed to, the punishments inflicted, as well as on the importance attached to religious training in the family and the school at that day, in the biographies of several of his pupils who became eminent in after life.

The Autobiography of the Rev. John Barnard, of Marblehead, drawn up by him, in 1766, in the 85th year of his age, at the request of the Rev. Dr. Stiles, of Yale College, and printed for the first time in the Collections of the Massachusetts Historical Society—Third series, Vol. V., p. 177 to 243, contains a sketch of his school experience under Mr. Cheever's tuition, and glimpses of the family and college training of that early day. In the extracts which follow, the chasms are found in the mutilated manuscript, and the words printed in Italics are inserted from conjecture by the Publishing Committee of the Society.

> "I was born at Boston, 6th November 1681; descended from reputable parents, viz. John and Esther Barnard, remarkable for their piety and benevolence, who devoted me to the service of God, in the work of the ministry from my very birth; and accordingly took special care to instruct me themselves in the principles of the Christian religion, and kept me close at school to furnish my young mind with the knowledge of letters. By that time I had a little passed my sixth year, I had left my reading-school, in the latter part of which my mistress made me a sort of usher, appointing me to[†] teach some children that were older than myself, as well as smaller ones; and in which time I had read my Bible through thrice. My parents thought me to be weakly, because of my thin habit and pale countenance, and therefore sent me into the country, where I spent my seventh summer, and by the change of air and diet and exercise I grew more fleshy and hardy; and that I might not lose my reading, was put to a school-mistress, and returned home in the fall.
>
> In the spring 1689, of my eighth year I was sent to the grammar-school,

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[*] Of the author of this autobiography, the Rev. Dr. Chauncey, of Boston, in a letter to Dr. Stiles, dated May 6, 1768, says: "He is now in his eighty-seventh year. I esteem him one of our greatest men. He is equalled by few in regard either of invention, liveliness of imagination, or strength and clearness in reasoning." On the burning of the Library of Harvard College, in 1764, he presented many books from his own library, and imported others from England to the value of ten pounds sterling; and, in his will, bequeathed two hundred pounds to the same institution. He died January 24, 1770, in the eighty-ninth year of his age. "Of his charities," he remarks, in his autobiography, "I always thought the tenth of my income due to our great Melchisedeck. My private ones are known unto God; but, there is one way of service I venture to tell you of; I have generally kept two boys of poor parents at school, and, by this means, have been instrumental in bringing up, from unlikely families, such as have made good men, and valuable members of the Commonwealth."

[†] It appears from this statement that this unnamed school-mistress adopted the monitorial system a century and more before Bell, or Lancaster, or their respective adherents convulsed the educational world of England by their claims to its authorship. She applied the principle of mutual instruction which is as old as the human family, and which has been tried to some extent, in all probability, in the instruction and discipline of many schools in every age of the world. Certain it is, that the system, with much of the modern machinery of monitors, was adopted by Trotzendorf, in Germany, in the sixteenth century, and by Paulet in France, many years before these two champions of an economical system of popular education, by means of one head master, with boys and girls for assistants, in a school of many hundred children, ever set up their model schools in Madras or London.

under the tuition of the aged, venerable, and justly famous Mr. Ezekiel Cheever. But after a few weeks, an odd accident drove me from the school. There was an older lad entered the school the same week with me; we strove who should outdo; and he beat me by the help of a brother in the upper class, who stood behind master with the accidence open for him to read out off; by which means he could recite his * * *three* and four times in a forenoon, *and the same in the* afternoon; but I who had no such *help, and was* obliged to commit all to memory, could not keep pace with him; so that he would be always one lesson before me. My ambition could not bear to be outdone, and in such a fraudulent manner, and therefore I left the school. About this time arrived a dissenting minister from England, who opened a private school for reading, writing, and Latin. My good father put me under his tuition, with whom I spent a year and a half. The gentleman receiving *but little encouragement*, threw up his school, and re*turned me to my father*, *and again* I was sent to my aged Mr. Cheever, *who placed me in the low*est class; but finding I soon read through my * * * , in a few weeks he advanced me to the * * * , *and* the next year made me the head of it.

In the time of my absence from Mr. Cheever, it pleased God to take to himself my dear mother, *who was* not only a very virtuous, but a very in*telligent woman. She was* exceeding fond of my learning, and *taught me* to pray. My good father also instructed *me, and made* a little closet for me to retire to for my *morning and evening* devotion. But, alas! how childish and *hypo*critical were all my pretensions to *piety, there* being little or no serious thoughts of God and re*ligion in me.* * * * * * * * * * *

Though my master advanced me, as above, yet I was a very naughty boy, much given to play, insomuch that he at length openly declared, "You Barnard, I know you can do well enough if you will; but you are so full of play that you hinder your classmates from getting *their lessons;* and therefore, if any of them cannot perform *their duty, I shall* correct you for it." One unlucky *day, one of my classmates did not look* into his book, and therefore *could not say his lesson*, though I called upon him once and again *to mind his book:* upon which our master beat me. I told *master the* reason why he could not say his lesson was, his *declar*ing he would beat me if any of the class were wa*nting* in their duty; since which this boy would not look *into* his book, though I called upon him to mind his book, as *the* class could witness. The boy was pleased with *my* being corrected, and persisted in his neglect, for which I was still corrected, and that for several days. I thought, in justice, I ought to correct the boy, and compel him to a better temper; and therefore, after school was done, I went up to him, and told him I had been beaten several times for his neglect; and since master would not correct him I would, and I should do so as often as I was corrected for him; and then drubbed him heartily. The boy never came to school any more, and so that unhappy affair ended.

Though I was often beaten for my play, and my little roguish tricks, yet I don't remember that I was ever beaten for my book more than once or twice. One of these was upon this occasion. Master put our class upon turning Æsop's Fables into Latin verse. Some dull fellows made a shift to perform this to acceptance; but I was so much duller at this exercise, that I could make nothing of it; for which master corrected me, and this he did two or three days going. I had honestly tried my possibles to perform the task; but having no poetical fancy, nor then a capacity opened of expressing the same idea by a variation of phrases, though I was perfectly acquainted with prosody, I found I could do nothing; and therefore plainly told my master, that I had diligently labored all I could to perform what he required, and perceiving I had no genius for it, I thought it was in vain to strive against nature any longer; and he never more required it of me, Nor had I any thing of a poetical genius till after I had been at College some time, when upon reading some of Mr. Cowley's works, I was highly pleased, and a new scene opened before me.

I remember once, in making a piece of Latin, my master found fault with the syntax of one word, which was not so used by me heedlessly, but designedly, and therefore I told him there was a plain grammar rule for it. He angrily replied, there was no such rule. I took the grammar and showed the rule to him. Then he smilingly said, "Thou art a brave boy; I had forgot it." And no wonder; for he was then above eighty years old.

Of Mr. Cheever's discipline, we may form some notion from the testimony of his pupils. The following lines from Coote's "English Schoolmaster," a famous manual* of that day in England, may have been the substance of his "school code."

THE SCHOOLMASTER TO HIS SCHOLARS.

"My child and scholar take good heed
unto the words that here are set,
And see thou do accordingly,
or else be sure thou shalt be beat.

First, I command thee God to serve,
then, to thy parents, duty yield;
Unto all men be courteous,
and mannerly, in town and field.

Your cloaths unbuttoned do not use,
let not your hose ungartered be;
Have handkerchief in readiness,
Wash hands and face, or see not me.

Lose not your books, ink-horns, or pens,
nor girdle, garters, hat or band,
Let shooes be tyed, pin shirt-band close,
keep well your hands at any hand.

If broken-hos'd or shoe'd you go,
or slovenly in your array,
Without a girdle, or untrust,
then you and I must have a fray.

If that thou cry, or talk aloud,
or books do rend, or strike with knife;
Or laugh, or play unlawfully,
then you and I must be at strife.

If that you curse, miscall, or swear,
if that you pick, filch, steal, or lye;
If you forget a scholar's part,
then must you sure your points untye.

If that to school you do not go,
when time doth call you to the same;
Or, if you loiter in the streets,
when we do meet, then look for blame.

Wherefore, my child, behave thyself,
so decently, in all assays,
That thou may'st purchase parents love,
and eke obtain thy master's praise."

Although he was doubtless a strict disciplinarian, it is evident, from the affectionate manner in which his pupils, Mather, Barnard, and Colman speak of him, and the traditionary reputation which has descended with his name, that his venerable presence was accompanied by "an agreeable mixture of majesty and sweetness, both in his voice and countenance," and that he secured at once obedience, reverence, and love.

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* The following is the title-page of this once famous school-book, printed from a copy of the fortieth edition, presented to the author of this sketch, by George Livermore, Esq., of Cambridge, Mass.

"THE
ENGLISH
SCHOOL-MASTER.

Teaching all his Scholars, of what age so ever, the most easy, short, and perfect order of distinct Reading, and true Writing our English-tongue, that hath ever yet been known or published by any.

And further also, teacheth a direct course, how many unskilful person may easily both understand any hard English words, which they shall in Scriptures, Sermons, or else-where hear or read; and also be made able to use the same aptly themselves; and generally whatsoever is necessary to be known for the *English* speech: so that he which hath this book only needeth to buy no other to make him fit from his Letters to the *Grammar-School*, for an *Apprentice*, or any other private use, so far as concerneth *English*: And therefore it is made not only for Children, though the first book be meer childish for them, but also for all other; especially for those that are ignorant in the *Latin* Tongue.

In the next Page the *School-Master* hangeth forth his Table to the view of all beholders, setting forth some of the chief Commodities of his profession.

Devised for thy sake that wantest any part of this skill; by *Edward Coote*, Master of the Free-school in Saint *Edmund's-Bury*.

Perused and approved by publick Authority; and now the 40 *time Imprinted: with certain Copies to write by, at the end of this Book, added.*

Printed by *A. M.* and *R. R.* for the Company of *Stationers*, 1680

Of the text-books used by Mr. Cheever,—to what extent the New England Primer had superseded the Royal Primer of Great Britain,—whether James Hodder encountered as sharp a competition as any of the Arithmeticians of this day,—whether Lawrence Eachard, or G. Meriton, gave aid in the study of Geography at that early day, we shall not speak in this place, except of one of which he was author.*

During his residence at New Haven he composed The Accidence, "*A short introduction to the Latin Tongue*," which, prior to 1790, had passed through twenty editions, and was for more than a century the hand-book of most of the Latin scholars of New England. We have before us a copy of the 20th edition, with the following title page:

"A SHORT
INTRODUCTION
TO THE
LATIN LANGUAGE:
For the Use of the
Lower Forms in the Latin School.
Being the
ACCIDENCE,
Abridged and compiled in that most easy and accurate Method, wherein the famous Mr. EZEKIEL CHEEVER taught, and which he found the most advantageous, by Seventy Year's Experience.
To which is added,
A CATALOGUE of Irregular Nouns, and Verbs, disposed Alphabetically.
The Twentieth Edition.
SALEM:
Printed and Sold by *Samuel Hall*, MDCCLXXXV."

This little book embodies Mr. Cheever's method of teaching the rudiments of the Latin language, and was doubtless suggested or abridged from some larger manual used in the schools of London at the time, with alterations suggested by his own scholarly attainments, and his experience as a teacher. It has been much admired by good judges for its clear, logical, and comprehensive exhibition of the first principles and leading inflexions of the language. The Rev. Samuel Bentley, D. D., of Salem, (born 1758, and died 1819), a great antiquarian and collector of school-books, in some "Notes for an Address on Education," after speaking of Mr. Cheever's labors at Ipswich as mainly instrumental in placing that town, "in literature and population, above all the towns of Essex County," remarks:—

"His Accidence was the wonder of the age, and though, as his biographer and pupil, Dr. Cotton Mather, observed, it had not excluded the original grammar, it passed through eighteen editions before the Revolution, and had been used as generally as any elementary work ever known. The familiar epistles of this master to his son, minister of Marblehead, are all worthy of the age of Erasmus, and of the days of Ascham.

"Before Mr. Cheever's Accidence obtained, Mr. John Brinsley's method had obtained, and this was published in 1611, three years before Cheever was born. It is in question and answer, and was undoubtedly known to Cheever, who has availed himself of the expression, but has most ingeniously reduced it to the form of his Accidence,—134 small 4to pages to 79 small 12mo., with the addition of an excellent Table of Irregular Verbs from the great work of the days of Roger Ascham."*

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* Unless some one, with more abundant material in hand, will undertake the task, we shall prepare ere long a Paper on the Early School Books of this country, published prior to 1800, with an approximation, at least, to the number issued since that date.

We have not been able to obtain an earlier edition of this little work than the one above quoted, or to ascertain when, or by whom, it was first printed.† An edition was published so late as 1838, under the title of CHEEVER'S LATIN ACCIDENCE, with an announcement on the title-page that it was "used in the schools of this country for more than a hundred and fifty years previous to the close of the last century." This edition is accompanied by letters from several eminent scholars and teachers highly commendatory of its many excellencies, and hopeful of its restoration to its former place in the schools. President Quincy, of Harvard College, says: "It is distinguished for simplicity, comprehensiveness, and exactness; and, as a primer or first elementary book, I do not believe it is exceeded by any other work, in respect to those important qualities." Samuel Walker, an eminent instructor of the Latin language, adds: "The Latin Accidence, which was the favorite little book of our youthful days, has probably done more to inspire young minds with the love of the study of the Latin language than any other work of the kind since the first settlement of the country. I have had it in constant use for my pupils, whenever it could be obtained, for more than fifty years, and have found it to be the best book, for beginners in the study of Latin, that has come within my knowledge."

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[*] Mr John Brinsley, author of the Latin Accidence referred to, was the author of a little work on English Grammar, printed in 1622, with the following title:—

"A
CONSOLATION
For Our GRAMMAR
SCHOOLES;
OR,
A faithful and most comfortable incouragement for laying of a sure foundation of a good
Learning in our Schooles, and for prosperous building thereupon.
More Specially for all those of the inferior sort, and all ruder countries and places; namely,
for Ireland, Wales, Virginia, with the Sommer Islands, and for their more speedie attaining
of our English tongue by the same labour, that all may speake one
and the same Language. And withall, for the helping of all such
as are desirous speedlie to recover that which they
had formerlie got in the Grammar Schooles:
and to proceed aright therein, for the
perpetuall benefit of these
our Nations, and of
the Churches
of Christ.
LONDON:
Printed by Richard Field for Thomas Man. dwelling in Paternoster Row, at the Sign of
the Talcot, 1622; *small* 4*to*.

Epistle, dedicatory, and table of contents, pp. 1 c84 and Examiner's Censure, pp. 2.

This rare treatise is in the Library of George Brinley, Esq., of Hartford, Conn.

[†] Since the above paragraph was in type, we have seen four other editions of the Accidence the earliest of which is the seventh, printed in Boston, by B. Edes & S. Gill, for I. Edwards & I. and T. Leverett, in Cornhill, MDCCIV. For an opportunity of consulting these editions an original edition of Dr. Cotton Mather's Funeral Sermon on the occasion of Cheever's death, and several other authorities referred to in this sketch, we are indebted to George Brinley, Esq., of Hartford, who has one of the largest and choicest collection of books and pamphlets, printed in New England, or relating to its affairs, civil and ecclesiastical,—state, town, church, and individual, to be found in the country.

Mr. Cheever was also the author of a small treatise of thirty-two pages, of which, the only copy we have seen [in Harvard University Library] was published forty-nine years after his death, and entitled—

"Scripture Prophecies Explained
IN THREE SHORT
ESSAYS.
I. *On the Restitution of all things,*
II. *On St. John's first Resurrection,*
III. *On the personal coming of Jesus Christ,*
As commencing at the beginning of the MILLENNIUM, described in the Apocalypse.
By Ezekiel Cheever,
In former days Master of the Grammar School in Boston.
'We have a more sure word of Prophecy, whereunto ye do well that ye take heed, &c.'
BOSTON,
Printed and sold by Green & Russell, at their Printing Office, in Queen-street. MDCCLVII."

The author concludes his last Essay as follows:—

"*Lastly.* To conclude, this personal coming of Christ at or before the beginning of the thousand years, is no other but the second coming of Christ, and great day of judgment, which the Scripture speaks of, and all Christians believe, and wait for, only there are several works to be performed in the several parts of this great day. The first works, in the first part or beginning of this day, is to raise the Saints; destroy his enemies with temporal destruction; to set up his kingdom; to rule and reign on the earth, with his raised and then living Saints, a thousand years; after that, in the latter part of the day, to destroy *Gog* and *Magog:* To enter upon the last general judgment, raising the wicked, judging them according to their works, and *casting them into the lake of fire, which is the second death.* All this, from first to last, is but one day of judgment; *that great and terrible day of the Lord*, and is but one coming, which is his second, as we plead for. After this, the work being finished, Christ will deliver up his mediatory kingdom to his Father, and, himself, become a subject, that GOD may be all in all. With this interpretation, all the Scriptures alleged, and many more, will better agree and harmonize in a clear and fair way, not crossing any ordinary rules given of interpreting Scripture than in restraining Christ's personal coming to the work and time of the last judgment. And, though many of these Scriptures may have a spiritual meaning, and, may be already in part fulfilled, which I deny not, yet that will not hinder, but that they may have a literal sense also."

Of Mr. Cheever's personal history, after he removed to Boston, we have been successful in gathering but few particulars not already published. From a petition addressed by him to Sir Edmund Andross, in 1687, some seventeen years after he removed to Boston, it appears, that he was then in prime working order as a teacher—still enjoying his "wonted abilities of mind, health of body, vivacity of spirit, and delight in his work." The following is the petition copied from the Hutchinson Papers in the Massachusetts Historical Society and printed by Mr. Gould:

"*To His Excellency, Sir Edmund Andross, Knight, Governor and Captain General of His Majesty's territories and dominions in New England.*

"The humble petition of Ezekiel Cheever of Boston, schoolmaster, sheweth that your poor petitioner hath near fifty years been employed in the work and office of a public Grammar-schoolmaster in several places in this country. With what acceptance and success, I submit to the judgment of those that are able to testify. Now seeing that God is pleased mercifully yet to continue my wonted abilities of mind, health of body, vivacity of spirit, delight in my work, which alone I am any way fit and capable of, and whereby I have my outward subsistence,—I most humbly entreat your Excellency, that according to your former kindness so often manifested, I may by your Excellency's favor, allowance and encouragement, still be continued in my present place. And whereas there is due to me about fifty-five pounds for my labors past, and the former way of that part of my maintenance is thought good to be altered,—I with all submission beseech your Excellency, that you would be pleased to give order for my due satisfaction, the want of which would fall heavy upon me in my old age, and my children also, who are otherwise poor enough. And your poor petitioner shall ever pray, &c.

Your Excellency's most humble servant,

EZEKIEL CHEEVER."

He died,* according to Dr. Mather, "on Saturday morning, August 21, 1708—in the ninety-fourth year of his age; after he had been a skillful, painful, faithful schoolmaster for seventy years, and had the singular favor of Heaven, that though he had usefully spent his life among children, yet he was not become *twice a child*, but held his abilities, in an unusual degree, to the very last,"—"his intellectual force as little abated as his natural." It was his singular good fortune to have lived as an equal among the very founders of New England, with them of Boston, and Salem, and New Haven,—to have taught their children, and their children's children, unto the third and fourth generation—and to have lingered in the recollections of his pupils and their children, the model and monument, the survivor and representative of the Puritan and Pilgrim stock, down almost to the beginning of the present century.

President Stiles of Yale College, in his Literary Diary, 25th April 1772, mentions seeing the "Rev. and aged Mr. Samuel Maxwell, of Warren," R. I., in whom "I have seen a man who had been acquainted with one of the original and first settlers of New England, now a rarity."† "He told me he well knew the famous Grammar schoolmaster, Mr. E. Cheever of Boston, author of the Accidence; that he wore a long white beard, terminating in a point; that when he stroked his beard to the point, it was a sign for the boys to stand clear." In another entry, made on the 17th of July 1774, Dr. Stiles, after noting down several dates in the life of Mr. Cheever, adds, "I have seen those who knew the venerable saint, particularly the Rev. John Barnard, of Marblehead, who was fitted for college by him, and entered 1698." Rev. Dr. Mather, in 1708, speaks of him not only as his master, seven and thirty years ago, but, also, "as master to my betters, no less than seventy years ago; so long ago, that I must even mention my father's tutor for one of them."

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* "Venerable," says Governor Hutchinson, in his History of Massachusetts, (Vol. II., page 175, Note), "not merely for his great age, 94, but for having been the schoolmaster of most of the principal gentlemen in Boston, who were then upon the stage. He is not the only master who kept his lamp longer lighted than otherwise it would have been by a supply of oil from his scholars."

† There is now living in Bangor, Maine, "Father Sawyer," who was born in Hebron, Conn., in Nov., 1755, and who has preached the gospel for 70 years. He knew Rev. John Barnard, of Marblehead, a pupil of Mr. Cheever. These three persons connect the present with the first generation of New England.

He was buried, according to an entry of Judge Sewall in his manuscript Diary,* under date of August 23, "from the school-house. The Governor, Councillors, Ministers, Justices, Gentlemen being there. Mr. Williams (his successor in the school) made a handsome oration in his honor."

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* We are indebted to Rev. Samuel Sewall of Burlington, Mass., for the following transcript from the manuscript Diary of Judge Sewall:

"Feria septima. August 21st (1708). Mr. Edward Oakes tells me, Mr. Chiever died this last night. N. He was born January 25th 1614. Came over to New England 1637, to Boston, land to New Haven 1638. Married in the Fall, and began to teach School, which work he was constant in till now; first at New Haven; then at Ipswich; then at Charlestown; then at Boston, wither he came in 1673; so that he has labored in that calling skillfully, diligently, constantly, religiously, seventy years—a rare instance of Piety, Health, Strength, and Serviceableness. The welfare of the Province was much upon his spirit. *He abominated Periwigs.*"

The Rev. Mr Sewall, in communicating the above transcript, adds the following remarks by the way of postscript. "Though Judge Sewall wrote the Sentence underscored last, yet it was not as what he conceived to be the *climax* of the characteristic excellence he had ascribed to good Master Cheever, but as a fact which happened to come into his mind as he was writing, and which he regarded as a recommendation of Mr. Cheever. In his prejudice against Periwigs, he was not singular. Such men as Rev. John Eliot was alike opposed to them; and Rev. Solomon Stoddard of Northampton wrote against them."

The assault of "the learned and reverend Mr. Stoddard," of Northampton, on Periwigs, was in a letter addressed to a distinguished citizen, no other than Chief Justice Sewall, and published at Boston, with other matters, in a pamphlet, in 1722, entitled "*An answer to some cases of Conscience respecting the Country.*" After disposing of some grave questions touching the oppression of the poor and ignorant by the knowing and crafty, in selling at an exorbitant profit, in depreciating the currency of the country, in taking advantage of the necessities of a man in debt, the author passes to the consideration of the lawfulness in the light of scripture, of men wearing their hair long, or of cutting it off entirely, for the purpose of substituting the hair of other persons, and even of horses and goats. "Although I cannot condemn them universally, yet, in wearing them, there is abundance of sin. *First*, when men do wear them, needlessly, in compliance with the fashion. *Secondly*, when they do wear them in such a ruffianly way as it would be utterly unlawful to wear their own hair in. Some of the wigs are of unreasonable length; and, generally, they are extravagant as to their bushiness." He not only condemns the wig because it is "wasteful as to cost, but, because it is contrary to gravity." "It makes the wearers of them look as if they were more disposed to court a maid than to bear upon their hearts the weighty concernments of God's kingdom."

But, Mr. Stoddard and Mr. Cheever were not alone in their abhorence of wearing periwigs. The Apostle Eliot, talked, prayed, and preached for its suppression. The legislative authorities of Massachusetts denounced "the practice of mens wearing their own or other's hair made into periwigs." It was made a test of godliness and church-membership. In spite of the authority given to the custom by William Penn, who, according to his biographer, "had four wigs with him, which cost him twenty pounds," the Friends, in their monthly session, at Hampton, in 1721, made this decision: "It was concluded by this meeting that the wearing of extravagant, superfluous wigs is altogether contrary to truth." In the second church of Newbury, in 1752, one Richard Bartlett was "dealt with": *First*, our said brother refuses communion with the church for no other reason, but because the pastor wears a wig, and because the church justifies him in it; setting up his own opinion in opposition to the church, contrary to that humility which becomes a Christian. *Second*, and farther, in an unchristian manner, he censures and condemns both pastor and church as anti-Christian on the aforesaid account, and he sticks not, from time to time, to assert, with the greatest assurance, that all who wear wigs unless they repent of that particular sin, before they die, will certainly be damned, which we judge to be a piece of uncharitable and sinful rashness." This custom prevailed in England and France, as well as in this country, and there, as well as here, provoked the attacks of the pulpit and the satirist, but gradually disappeared, or gave place to other fashions of the toilet, if not quite so monstrous, full as expensive and as absurd "There is no accounting for taste." See Felt's *Customs of New England.*

SCIENTIFIC SCHOOLS IN EUROPE.

BY DANIEL C. GILMAN, A. M., NEW HAVEN CONN.

Every American who studies the educational systems of Europe, remarks with surprise the universal prevalence of schools intended for instruction in theoretical and practical science.

In contrast with his own country, where until quite recently, arrangements have been made for the special training of but three professions, known in consequence as "the learned professions," he finds that abroad, definite courses of instruction, equally thorough and systematic, are provided for engineers, architects, miners, chemists, farmers, foresters, and the like. Educational institutions for these objects are not confined to any one country. France, Prussia, Austria, and the smaller German states, Russia, Sweden, Denmark, Belgium, Spain, Portugal, Greece, and recently England, have all recognized the importance of such schools. For their liberal maintenance, annual appropriations are made by the state with as much regularity as in this land for the support of Common Schools.

The usefulness of such institutions, wherever they have been commenced, is unanimously admitted. The material prosperity of many European countries is manifestly dependent upon the extent and character of their systems of scientific education.

In illustration of this point, let a few instances be cited. Notwithstanding various adverse circumstances, the limited extent of its mines of iron and coal, its long protracted and oft repeated wars, and its frequent changes in government, France holds the foremost place among enlightened nations. It excels in the perfection of manufactured articles, in the triumphs of modern architecture, in the construction of rail roads, in the administration of its mines, in the superiority of its army, in the diffusion of elegance and taste, and in the general enjoyment of the comforts and luxuries of civilized life. All this is owing in a great measure to the number and variety of those institutions in which scientific investigations are encouraged or applied. The capital has its Polytechnic Institution, its *Conservatoire* of Arts and Trades, its Central School of Arts and Manufactures, its Academies of Design, and of the Fine Arts, its Engineering School for Roads and Bridges, its Garden of Plants, with museums and courses of lectures, its School of Miners, besides the various scientific chairs established in the university. While Paris is thus provided with schools for the highest kind of instruction, the provincial cities and towns have their subordinate institutions, often directed by the graduates of the metropolitan establishments. Thus, throughout the whole empire, industrial education is provided; sometimes of a theoretical character, and sometimes exceedingly practical, as in the schools of weaving, at Lyons and Nismes, of ship building at La Rochelle, and of lace making at Dieppe.

The little kingdom of Saxony affords another good illustration of the effects of industrial training. Apparently shut out by its interior position from all foreign commerce, and suffering from an overcrowded population, the country is prosperous and happy, its trade is active, its manufactures celebrated, its fields well tilled, its mines well worked. The cause of this is found in the fact that the Polytechnic School at Dresden, the Forest School at Tharandt, and the Mining Academy at Freiberg, are all institutions of a superior order, the influence of which is not only directly exerted upon the material welfare of the country, but also indirectly, by supplying a multitude of schools of lower grades, with properly trained instructors. It is surprising to notice the number of these industrial seminaries. According to Dr. Barnard,* Saxony, with a population about equal to that of Connecticut, Massachusets, and Rhode Island, had a short time since, a university with 85 professors, and 835 students; six academies of the arts and of mining, with 43 instructors, and 1400 pupils; eleven gymnasia; six higher burgher and real schools; three special institutions of commerce and military affairs, with 43 teachers and 240 pupils; nine normal schools; seventeen higher schools of industry or technical schools, with 72 teachers and 779 pupils; sixty-nine lower technical schools with nearly 7000 pupils; and 24 schools of lace making, with 37 teachers and nearly 2000 pupils; in addition to more than two thousand common schools, a large number of private schools, and public establishments for the blind, deaf, and other unfortunate persons.

The experience of Belgium, sometimes called "The work-shop of Europe," confirms the importance of industrial and scientific education. According to Dr. Playfair, one hundred of its leading manufacturers have been trained in the elevated course of the Central School in Paris, while the Belgian institutions themselves have been well attended, and have given to still larger numbers of men engaged in industrial pursuits, education of a superior order. In the Engineering school of Ghent, the Mining school of Liége, and the various Agricultural institutions, the highest principles of science are taught in their applications to industry, with evident benefit to the whole material prospects of all the country.

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* National Education in Europe. Page 260.

The experience of Russia may likewise be cited. Notwithstanding that the empire is deficient in the means of popular education, a system of technical instruction has been inaugurated in the capital, which is exerting a most important influence upon the development of the country. The results of the training which is given in the schools at St. Petersburg, of applied theoretical science, were evinced in the remarkable contributions from Russia, exhibited in the Crystal Palace, at London, in 1851, and drew forth a general acknowledgement that schools of Mines, of Agriculture, of Forestry, and the Polytechnic Institute, have already effected the useful arts in that country, to an extent which is surpassed only by the influence which the admirable schools of military science have had upon the arms of the empire.

Prussia, Austria, and the lesser powers of Germany, likewise unite in testifying that the agricultural and manufacturing prosperity of those countries, other things being equal, has been in direct proportion to the efficiency of their schools of special training.

What now has been the consequence of an opposite course of procedure, to that pursued in the nations that have been mentioned? It is not necessary to refer to Spain, Portugal, and Italy, where scientific education, although commenced, is still far behindhand. England, commercial and industrial England, may be brought up as an illustration of the bad effects of neglecting industrial instruction. Its mines of coal and iron, and other metals, the foundation of manufacturing success, are abundant, its inhabitants are eminently practical, its institutions are free; all this tending to the maintenance of its once preëminent position in the world of industrial art. But what is its real condition? Without quoting the expressions of M. Cocquiel, a Belgian gentleman, commissioned to study the establishments of Great Britain, nor those of other foreign observers, who might be influenced by jealousy or hostility, it is quite enough to say that Englishmen the best qualified to judge, agreed at the close of the London Exhibition of 1851, that Great Britain was losing its relative position; and instead of remaining superior in manufacturing skill to all nations upon the continent, was in danger of becoming inferior to many. The Royal Commissioners of the World's Fair, even went so far as to state in their Report to the Crown, that England "would lose its strength and pride" unless some new measures should be taken for instruction in theoretical and practical science. Dr. Lyon Playfair, of London, a gentleman distinguished for his high attainments and wide observation, in a lecture on the results of the English exhibition, took for his especial theme, "Chemical Manufactures, as indicating the necessity of Industrial Education." Among other things he remarks, "The result of the exhibition, was one that England may well be startled at. Wherever, and (that implies in almost every manufacture,) Science, or Art, was involved as an element of progress, we saw as an inevitable law, that the nation which most cultivated them was in the ascendant. Our manufacturers were justly astonished at seeing most of the foreign countries rapidly approaching, and sometimes excelling us in manufactures, our own by hereditary and traditional right." In surgical instruments, and some kind of edge tools; in swords and guns; in plate and flint glass; in woolens; in calico printing and paper staining; in china and porcelain; and even in hardware, the lecturer acknowledged that England if not surpassed, was closely rivaled by nations once obviously in the rear. As a remedy for all this he forcibly urges "Instruction in Science," upon the attention of the people of Great Britain.

A few months afterward, Dr. Playfair visited the Scientific Schools of the continent, and in making known their admirable features to the people of England, he showed conclusively that the "experience" in manufacturing, which his own countrymen self-confidently relied on, was immediately made use of by foreign states, and diffused, moreover, by what was wholly neglected in England, industrial education. Consequently, the continent, he says, has a growing element in production, we a decreasing.

The practical character of the English was never better illustrated than by the manner in which this humiliating lesson of their industrial inferiority was received throughout the kingdom. There was no denial of the truth, no avoidance of the remedy. The Board of Trade was immediately authorized to organize a Department of Science and Art, to which a Parliamentary appropriation of £80,000 was made, for the expenses of last year and by means of which elevated instruction in theoretical and practical science will soon be liberally provided.

Having thus alluded to the general establishment in Europe of Schools of special training and their acknowledged advantages, it is important, before enquiring what lessons our own country should derive from them, to distinguish between the different kinds of educational establishments to which the term "Industrial," is applied.

The terminology as well as the system of education varies in different countries, but in a general way it may be said that industrial schools are of three kinds, intended for the wants of different social ranks. The lowest of these are schools for children so poor or degraded that they are not able or ought not to give up work for study, but who may be taught to read, write, and cipher, while acquiring the rudiments of some simple trade. A second class of these industrial schools, is intended for pupils who have received a good elementary education, and who are willing, either at its close, or during its progress, to spend some time in special training for their future occupations. Such scholars, without entering upon the highest branches of science, become familiar with the applied laws of chemistry, mechanics, and the like; and can immediately command in the mine, the work-shop, or the field, far higher positions than those who have merely received a so-called practical education.

The highest class of special schools have, sometimes, when based upon independent foundations, received the name of "industrial universities," and at other times have been recognized in the highest institutions, as legitimate parts of the philosophical faculty, coördinate with schools of law, medicine, and theology. These alone deserve the name of "scientific schools." In many countries, the degrees or certificates which they grant, are far more essential to success in various practical callings, than good diplomas or fair examinations are in this country, for admittance to the bar, the pulpit, or the faculty of medicine.

The thorough and yet comprehensive character of the instruction that is given in these scientific schools, is worthy of remark, in contrast with what has thus far been provided in our own country. The utmost which has been done in our institutions, has been to establish *a* professorship of agriculture, or *a* professorship of engineering; but in the best continental institutions such sciences would be considered as demanding the attention of several well trained men; and in some countries would each be taught in a separate school with several professors, and all the necessary accompaniments of buildings and apparatus. For any one man to be willing to "profess" a knowledge of two such sciences as "mining" and "metallurgy" would in Germany be considered an indication of emptiness of mind or emptiness of purse.

But these remarks will be better understood by a more particular reference to one or two callings in life, and the preparation required for entrance upon them. Let us take for example, the profession of architecture. Whoever wishes to enter upon it in our country, seeks admission to the office of some man of acknowledged reputation, where in the most desultory manner, he is allowed to pick up such items of information as he can, relating to his future calling. The most which he can command in any college or university of this country, is instruction in those principles of engineering, which are applicable to architecture. After pursuing such a course, as long as it is agreeable to him, he opens an office of his own, and commences in a half prepared manner, to practice his profession. Is it any matter of wonder that ambitious and costly edifices, wholly wanting in good taste, and combining all orders of architecture in no order of arrangement, abound in this country; that legislative and other public bodies, church and school trustees, as well as private persons, are continually misled by the estimated cost of buildings which they wish to construct, and that serious errors are often made in so fundamental a matter as the strength and stress of materials? All this might be remedied by such an architectural school as there is in Berlin, or even by such architectural instruction as is given in the Polytechnic schools of many other cities.

The Royal Prussian Architectural Academy was established by the ministry of commerce, agriculture, and public works, as an expansion of the architectural school which had previously existed. Its number of pupils is not far from 175, for whose instruction there are 19 regular professors. Seven "extraordinary" instructors announced their courses for the winter of 1854–5. The subjects which are taught in their relations to architecture, are the following:—

Physics, Chemistry, Mineralogy, the nature of Materials, Descriptive Geometry, Perspective, Analytical Geometry, Statics, Hydrostatics, Mechanics, Hydraulics, Aerodynamics, Machinery, Laws of constructing all parts of edifices and machines, the Monuments of Antiquity, and the Comparative History of Architecture, Architectural Machine drawing in its full extent, the Construction of Roads, Rail Roads, and Canals, Country, City, and Ornamental Architecture, the Plans, Calculations, and Estimates for all kinds of building, higher Geodesy and the management of Architectural business.

The annual income of this magnificent institution is about 21.000 thalers, which may be considered as representing a capital of not less than 350.000 thalers, or 245.000 dollars. Pupils of advanced education only are received into the school; while to render valuable the degrees which it confers, the Prussian government recognizes as "Builders," those only who have pursued with credit a two years course of instruction with one of practice, and as "Architects," those only who have followed an additional year of theoretical instruction, and two years practice as builders. Seven years is the average time, after leaving a gymnasium, before a young man is acknowledged as an "Architect." The effect of such regulations and instruction upon the architecture of the country, is too obvious to be mentioned.

As an illustration of what is doing for another profession, wholly neglected in the educational systems of this country, but yet of the greatest importance to our national prosperity, let the school of Miners, in Saxony, be cited. That celebrated establishment, now in its 90th year, is located at Freiberg, in the immediate vicinity of mines of silver, copper, cobalt, lead, &c. Thirteen instructors deliver lectures upon Physics, Chemistry, Mineralogy, Descriptive and Practical Geometry, Crystallography, Mining Machinery, Metallurgy, the Blow Pipe, Geognosy, Assaying, Mining jurisprudence, Drawing, and the French Language. The reputation of the school is so great that it is attended by pupils from far distant countries; and on the catalogue of 1854, for example, will be found the names of scholars from England, Russia, Sweden, Spain, Tuscany, Wallachia, Chili, Mexico, and the United States of America. The Mineralogical and Geological Cabinet, including the collection of Werner, the physical and chemical apparatus, and the laboratories are all of a high order.

Let us take another illustration of the special instruction which is given abroad, in a school for a profession not less important in our own country, than engineering, or mining, the profession of Agriculture. Every one knows what is done, or what is not done for the farmers of our country. In Europe, almost every state has its chief agricultural school, where scientific instruction is given, and its smaller schools where only the practical duties of a farm are taught. The smaller schools can never live until the higher school is established.

Among agricultural institutions of an elevated order, that at Hohenheim, near Stuttgardt, was pronounced by Prof. Bache as the most complete. It is divided into two parts, one for practical and the other for scientific instruction; the number of pupils in the former being limited to 27, and that in the latter being less than one hundred. A farm of nearly 1000 acres is appropriated to the school, and is provided with the necessary buildings for the lectures and the museums, as well as for stables, work-shops, beet sugar manufactories, cider presses, &c. Nine professors form the corps of instructors, in addition to the necessary overseers and assistants upon the farm. Two years is generally required in pursuing the agricultural and two the forestry * course. The special points which are taken up are the follow-

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* In France and other countries long settled, where timber is scarce, it is a matter of the highest importance for the government to provide for the protection and cultivation of forests. It is not too early for portions of our own country to pay attention to the same subject.

ing: *First*, *Agriculture*, the general principles of farming and horticulture, including the culture of the vine, the breeding of cattle, growing of wool, raising of horses, rearing of silk-worms, arrangement and direction of farms, estimation of the value of farms, book-keeping; *Second*, *Forestry*, including the Encyclopædia of Forestry, Botany of Forests, Culture and Superintendence of Forests, Protection of Forests; Uses of trees for timber, fuel, dyes, &c.; Laws and Regulations pertaining to forests; *Third*, *accessory branches;* veterinary art; agricultural technology, especially the manufacture of beet sugar, brewing, vinegar making, and distilling; the construction of roads, drains, and hydraulic works. Beside these specialties, more general sciences, like Geology, Botany, Natural History, Chemistry, Physics and Meteorology, Algebra, Trigonometry and Geometry, are all included in the course of studies.

Enough has now been said to show the extent to which special training may be carried in single branches of applied science. But, architecture, mining, and agriculture, are not the only departments thus provided for in Europe. Engineering, especially in reference to Roads and Bridges; Chemistry in its relations to the Arts; the Laws of Mechanics; the Principles of Design; Zöötechny or the peculiarities and care of Animals; Commerce, and even the Post Office system are made in different countries the theme of long and systematic study.

Frequently, instruction in several specialties, or *fächer*, is given in the same institution. The Central School of Arts and Manufactures at Paris, the Trade Institute of Berlin, the Polytechnic Schools of Dresden, Carlsruhe, Munich, and Vienna, are all of that character. They really merit the designation of Industrial Universities.

The limits of this article will not allow of an account of more than one such establishment, and the first which has been named may be taken as a fair example both of what is done abroad and of what is needed at home. Many of the peculiarities in its administration are of course adapted to a different state of society from that which exists among us; but, its general system of organization, providing in one establishment for instruction both in general science and in several specialties, viz.: Mechanics, Architecture and Engineering, Mining and Metallurgy, and Chemistry, applied in all its branches, including agriculture, has already met with approbation in this country in the plans of the Yale and Lawrence Scientific Schools.

The Central School of Arts and Manufactures was commenced at Paris, in 1829, as a private institution; but, its usefulness was so great that the Chamber of Deputies proposed its adoption by the Government, "as a sequel to the Polytechnic School, and an adjunct to schools for special arts and trades."

The money was granted by the Minister in 1838, and in 1842 it appears that nineteen of the Counseils Généraux in different departments in France voted funds to send up to this college a certain number of young men from their towns; and the Minister had, it seems, provided for forty, whose previous instruction and good conduct, and the positions of their families, has entitled them to the favor of the State.

The STUDENTS of the establishment are of three classes—viz., those who are brought up by the State; those for whom funds have been voted by the Councils General of departments; and those received at the expense of their families.

In order TO OBTAIN ADMISSION, Government and departmental candidates are examined at Paris, before a jury named by the Minister of Commerce for this purpose each year. The candidates must have been registered and recommended by the department whence they come; and they must prove that they are between the ages of eighteen and twenty-one. They undergo two examinations—one oral, the other written; and they must solve with ease certain problems in elementary mathematics and geometry. They must write and describe their problems and theories well; draw by rule and compass; sketch and color. Without these qualifications it is impossible to be admitted as a Government student, and the juries are instructed to select those who shew most literary attainments, and who "appear to have that deception of intelligence which promises an aptitude for industrial science, rather than mathematical acquirements." A great preference is given to those who have obtained the necessary qualification in a high degree, and whose means are limited, and the administration is not to aid those whose families are in a position to defray the expenses of their education. All students may participate in an "Encouragement Fund" for the first year, but afterwards only those who shew the greatest amount of merit; and an augmentation may be accorded to those who are remarkable for still higher qualities. PRIVATE STUDENTS are admitted at any age above sixteen. They, too, submit to both oral and written examinations. They must execute certain problems, and write clearly and correctly the theories as set forth in the programme. Foreigners as well as French students are admitted, provided they can write and read the language. In Paris, these examinations are made by a board named yearly by the Council of Studies, in the departments by public professors of mathematics, and in foreign countries by the university professors; and all applicants must produce proper testimonials as to their morality.

The AUTHORITY OF THE SCHOOL is vested in a director and a Council of Studies, consisting of nine professors. The director lives in the college, and is charged with its administration and correspondence, but he can not appoint professors; these are selected for their practical as well as theoretical experience. The Council admit or reject candidates after reading the statement of their examinations, and they report on the progress of each student—as to his aptitude and capabilities, and whether he is eligible to be transferred to a superior division, or whether his friends shall be requested to remove him. The students bind themselves by a solemn declaration to take no part in any conspiracy to oppose the execution of the decisions of their superiors, and they promise to enter into no coalition for imposing on the junor or senior branches of the college. No students are lodged within the college, and they are not permitted to wear any description of uniform.

The COURSE OF INSTRUCTION is limited to three years, during which period it is obligatory. It includes lectures, daily examinations, drawing and graphic exercises, chemical manipulations, working in stone and wood, physics and mechanics, the construction of buildings and other works, and general annual examinations. The students are, in addition, expected to make notes and reports, and to visit the workshops and manufactories. They are boarded and lodged at respectable houses in the immediate vicinity, at their own expense. Each year there are general examinations in every branch of science and art. In the middle of the second year the studies are subdivided—one course is general, the other has special relation to the ultimate destination of the scholar.

The specialities are four in number:—1. Mechanicians. 2. Constructors, as architects, engineers. 3. Mining and metallurgy. 4. Chemistry, applied in all its branches, including agriculture. After that period, the whole energies of the student are devoted to those branches of science on which the profession he is about to adopt depends.

With respect to DIPLOMAS and CERTIFICATES, the students of the third year are admitted to competition for diplomas, a programme of examination being made out for each speciality. The competitors are allowed thirty-five days within the college to make out their designs and compose their memoir, and then they are examined by five professors in public and before the students of two years. After the examination, the professors in council grant diplomas to those who have excelled and who have passed with the greatest honors, and "certificates of capacity" to those who have given less general proof of the highest talent. At each examination those who do not advance sufficiently, or are idle, are recommended to retire. All the examinations are kept for reference in the archives of the college.

The FEES FOR EACH STUDENT, including several extras, are altogether 870 francs ($174) per annum. That the institution is flourishing, is proved by its being mainly self-supporting; and that the country benefits by it, the long array of eminent graduates who might be named together with a statement of their present employments, would most satisfactorily illustrate.

The following is the programme of instruction somewhat more in detail:

FIRST YEAR.

Descriptive Geometry. Theory and application to perspective, drawing, and shading; stone-cutting—details; carpentry—details.

Analytical Geometry and Mechanics generally. Theory of motion and equilibrium of forces; velocity, acceleration, force, mass; general principles of motion, gravity, power, effect; statics of solid bodies.

Construction of Machines.

Transformation and Modification of Motion.

Physics generally. Laws of gravity, balances, pendulum, and its application: hydrostatics, hydrodynamics, heat, magnetism, electricity, electrodynamics and electro-magnetism, molecular action, acoustics, light, optics.

For the first year the students are made to manipulate, in determining the density of solids, liquids, and gasses, the construction and use of barometers, thermometers, and hygrometers; determination of refractive powers, photometers; power of rotation in liquids, saccharometers.

Chemistry generally. Minerals, and the study of all objects not metallic; the atmosphere, gasses. Metallic; general methods for extraction of metallic oxides; general properties of sulphurets, chlorides, &c.; general properties of the salts; metals useful either alone or in their combination for the arts.

Organic chemistry. Methods of analysis; principal organic products; their uses in the arts; acids, and their applications.

One day in the week in the laboratory, to practice the experiments they have seen in the lecture-room

Medicine and Natural History applied to Industry.

Hygeian Science and Physiology, as far as Public Health is concerned:

First Part. Food, clothing; influence of heat and cold; dampness, and a dry atmosphere; sun and winds; the health in different professions; sanitary regulations and legislation.

Second Part.—Natural History. The animal creation in all that relates to industry, the arts and agriculture; power, produce, and nutriment. The vegetable creation; substances employed in the arts; wood, textiles, cereals, wines, tanning, dyes.

Drawing and Design in its various Branches. During the vacation, plans and elevations of buildings and works are executed, which must be presented at the commencement of the term.

SECOND YEAR.

The same as the first year, besides modeling in plaster for stone-cutting, &c.

Industrial Physics. Properties and construction of furnaces of all kinds for different descriptions of fuel, transmission of heat, sublimation, distillation, evaporisation, heating air and liquids, refrigeration, lightning, ventilation, and sanitary arrangements of towns; constructions of all kinds in model bricks and plaster of Paris

During the recess the students visit works and manufactories, and are obliged to present detailed reports on them.

The students of the third year complete five different projects, with drawings, calculation and estimates on which there are conferences, one on each speciality every month.

Second and Third Year. Applied mechanics in great detail, applied hydrodynamics, construction and setting up of machines, analytical chemistry in different branches for different professions, industrial chemistry both mineral and organic, agricultural chemistry.

Public Works. Roads, bridges in stone, wood, iron, and suspension; natural inland navigation, artificial inland navigation.

Architecture.

Geology and Mineralogy.

Mining, Working, and Ventilation Metallurgy and fabrication in iron, steel, zinc, and copper; furnaces and founderies for all metals.

Technology. Manufacture of cordage; stone and wood sawing; textile manufactures in cotton, wool, flax, silk; cotton spinning; expression of oils; grinding, felting, ceramic works, and pottery.

Special Courses for the Third Year. Steam-engines of all descriptions; railways and different systems for locomotion; the students visiting the most important works with their professors.

The students are examined daily upon the subjects of their lectures, by the professors and repeaters (Répétiteurs.) The utility of this latter class of teachers is well established in France, and they are found in every institution in which lecturing is practiced to a great extent as a means of instruction; they prevent the burthen of teaching from falling upon professors, whose duty it is to be engaged in advancing, as well as in propagating science, and who would be prevented from following one or other of these honorable and useful careers, by having the duty of teaching superadded to that of lecturing. So well is the necessity of relieving the professor understood, that in all courses requiring preparation, special persons are appointed, called preparers, who take off this burthen also from the professor. The result is, that many men of high eminence are thus enabled to diffuse their knowledge among students by lecturing, and are willing to do so, though they have other and more profitable employments, to which they would exclusively confine themselves, if this were connected with teaching by interrogation and the task of preparing experimental illustrations. The pupil is thus greatly the gainer, and has at the same time the special examination upon the lecturers which is so necessary to complete the instruction, and to which a repeater is entirely competent. Young men of talent seek the situations of repeaters as the best method of showing their particular qualifications, and the most certain road to a professorship. For each recitation the pupil receives a mark, and the roll of the class with these marks being preserved, its indications are combined with the results of the examination, to decide upon the fitness of a pupil when he comes forward for a diploma.

The graphic exercises consist in the drawing of ornamental work, in India ink drawing, in drawing with the steel pen and instruments, and in sketching the diagrams of the lectures to a scale. Great importance is attached to this part of the course, and much time spent in it. The rooms for these exercises are conveniently arranged, and the pupils are superintended during them by a professor or a repeater, and visited occasionally by the director of studies or his deputies. The drawing-tables are so arranged that the pupils stand while at work, which at their age is very desirable.

The arrangements for chemical manipulation by the students are very complete; they have access not only to the laboratories of the two professors, but to others which are devoted to special branches. During the first year every student is employed in laboratory duty once a week, and has also the opportunity of performing some of the principal physical experiments. They are superintended, while thus occupied, by repeaters. During the first half year of the second course the students are called, in turn, to general duty in the laboratory; and during the second half of the same year, and the whole of the third, the two sections who follow the courses of chemistry applied to the arts and metallurgy, are employed in manipulations connected with them. There is an officer for their superintendence, called the director (chef) of the chemical exercises, who is subordinate to the professor of chemical analysis. The opportunities thus afforded of acquiring a general practice under the guidance of the distinguished professors of this school are invaluable, and form one of the most important features of the establishment.

The materials for constructing models of some of the more useful works, and apparatus relating to the arts, are furnished to the pupils, and used under the direction of their instructors.

The annual number of students entering varies from 130 to 160. They work eight hours and a half in the college, and four at their residences. Four inspectors are constantly occupied in surveying, independently of those superintending the graphic department.

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* The above account of the SCHOOL OF ARTS AND MANUFACTURES, at Paris, is copied from Barnard's *National Education in Europe*, to which the reader is referred for a full description of the Polytechnic School of France at Paris, the Central Institute of Arts at Berlin, and the Polytechnic Institute at Vienna.

Having thus considered the universal prevalence in Europe of scientific schools, their acknowledged value, and their comprehensive scope, let us briefly inquire into the wants of our own country, now almost wholly deficient in the higher and lower schools of special training, with the exception of law, medical, theological, and normal seminaries.

If England, from which we annually import so large an amount of manufactured articles, became alarmed about its industrial prosperity, what may we not fear? We are a new country, it is true, doing in years the work of centuries; but, for this very reason, every day of labor should be spent in the most effective manner. No time should be lost in trying experiments whose value has already been decided upon elsewhere. The science as well as the experience of every other nation should be brought to use in our own. Communication with the old world is so frequent, that it is not only our loss but our fault, if we fail to make the most of European discoveries. But, how do we compare, in most of our manufactures, with France, England, Belgium, and Germany? Let the commercial statistics of our country reply. The slightest examination of such tables will show that for many articles not merely of luxury, but of almost universal consumption we are wholly dependent upon European countries.

The recent Exhibitions of Industry and Art, made in London, New York, and Paris, have confirmed this fact. Upon these occasions, opportunities of a favorable character have been afforded for the comparison of the industrial attainments of different lands; and, although, in London and Paris, our own countrymen did not avail themselves to the full extent of the advantages of such an exhibition, yet, any one who was acquainted with the character of American manufactures, needed only a glance at the displays which were made by European nations, to be convinced that, notwithstanding the number of ingenious inventions which have originated in this country, the productions of our shops and factories are, except a few cheap staple goods, inferior to what are made at a corresponding cost abroad. There are many branches of useful manufacture in which, as yet, we have scarcely made a commencement.

Now, to what is the undeveloped state of our mines, the imperfect character of our agriculture, the inferior quality of our manufactures, and the disappearance of our forests, to be attributed? Surely, not to the lack of general intelligence among the people, to the want of popular instruction, unjust laws, nor to any deficiency in natural resources. Without boasting, we may claim to be a nation of enterprising and industrious freemen, in a land preëminently favored in its productive capacity. But, have we the educational means which we require? Granting that our common schools, our colleges, and our "professional" institutions are, for the most part, excellent, are there not great wants still unsupplied? Even with the good beginnings which have been made in several places, what have we in our whole land to compare with the Scientific Schools of European countries? Why is it that scores of young men are annually visiting Europe to pursue those special courses of instruction which are there so liberally provided? Why is it that the munificent endowment of Mr. Lawrence, at Cambridge, has immediately attracted so many pupils? Why is it that the Schools of Engineering and Applied Chemistry, commenced at New Haven, without any funds for the endowment of professorships, the erection of buildings, the collection of museums, and the purchase of apparatus, have already been so well attended? Because the young men of this country, as the professions of law, medicine, and theology become crowded, are eager for the proper training to excel in other sciences, and also because the producers of every kind, are rapidly learning that for a long and successful competition with the manufacturers of Europe, the same union must be established in this country which exists abroad, between Applied and Theoretical Science.

It is a characteristic of our citizens to do upon a liberal scale whatever is attempted. Our colleges, our popular schools, our public libraries, our observatories have often received munificent endowments. In the present condition of our country, it is not less important that a Scientific School of the highest order should receive a corresponding degree of sympathy and support. Anything less than a liberal provision for its wants, would but half accomplish the task that is to be performed. Large investments, on the other hand, will re-act most efficiently on the welfare of the land.

With the greatest wisdom, the Fathers of New England, in the earliest days of their colonial existence, commenced not merely the school for elementary instruction, but the grammar school, and the college, in which more elevated departments of knowledge might thoroughly be taught. In those branches of science which have been discovered since their day, we need to follow their example. The rudiments of science are already taught in various institutions and experimental knowledge is attained in the shop and the field. But, more than this is needed. We need higher courses of instruction, which, alone, will secure our continued advancement, or even our permanent prosperity.

It has been sagely said that nothing is more prolific in utilities than abstractions. Of this truth, the whole history of science is an illustration, its generalizations being scarcely conceived in the mind of the philosopher, before the practical world has made therefrom the most serviceable deductions. A school which, rising above those common places which are universally known, should supply an education of the most elevated order, and should stimulate original inquiries and investigations, would confer unspeakable benefits upon every portion of our country, and would not be without its influence upon the progress of humanity.

NOTE.—For the further illustration of this subject we merely add in this connection, a list of the *Fach-Schulen*, or schools of Special Professional Training, which are established in Germany. Schools of Law, Medicine, Theology, and Teachers' Seminaries, are not included in the list.

SCHOOLS OF ARCHITECTURE.—Berlin, Breslau, Chemnitz, Crefeld, Dantzic, Dresden, Eisenach, Erfurt, Halberstadt, Hechingen, Holzminden, Kaltennordheim, Carlsruhe, Königsberg, Leipsic, Magdeburg, Munich, Nienburg, Plauen, Tübingen, Weimar, and Zittau. *Total*, 22.

SCHOOLS OF MINING.—Berlin, Clausthal, Freiberg, Halberstadt, Leoben, Przibram, Steben, *Total*, 7.

SCHOOLS OF FORESTRY.—Aschaffenburg, Ausser, Berlin, Brunswick, Clausthal, Dreissigacker, Düben, Eisenach, Freiburg, Giessen, Hohenheim, Carlsruhe, Kiel, Königsberg, Mariabrunn, near Vienna, Melsungen, Neustadt-Eberswalde, Tharandt. *Total*, 18.

SCHOOLS OF COMMERCE.—Berlin, Bremen, Chemnitz, Darmstadt, Dessau, Dresden, Fürth, Hamburg, Insterburg, Carlsruhe, Leipsic, Lübec, Magdeburg, Mannheim, Nuremberg, Rostock, Rothenburg, Triest, Vienna. *Total*, 19.

MILITARY SCHOOLS.—Beusberg, Berlin, (three), Brunswick, Culm, Darmstadt, Dresden, (two), Hainburg, Hanover, (two), Carlsruhe, Cassel, Cracow, Ludwigsberg, Marburg, in Austria, Munich, New Cilli, Oldenburg, Olmütz, Potsdam, Stralsund, Wahlstadt, near Liegnitz, Vienna, Neustadt, near Vienna, (four), Wiesbaden. *Total*, 30.

SCHOOLS OF AGRICULTURE.—Amberg, Ansbach, Aschaffenberg, Augsburg, Bamberg, Bayreuth, Beberbeck, Carlshof, near Rostock, Darmstadt, Dreissigacker, Dresden, Eldena, near Greifswald, Erlangen, Freysing, Hof, Hohenheim, Jena, Kaiserslautern, Cannstatt, Carlsruhe, Kaubeuern, Kempten, Landau, Landshut, Möckern, near Leipsic, Möglin, near Wriezen, Munich, Neudeckerhof, Nordlingen, Nuremberg, Passau, Poppelsdorf, near Bonn, Proscow, in Silesia, Regensburg, Regenwalde, Schleisheim, Schweinfurt, Speier, Straubingen, Tharandt, Waldau, near Königsberg, Weihenstephan, Wiesbaden, Wunsiedel, Würzburg, Zweibrücken. *Total*, 46.

SCHOOLS OF MUSIC.—Hamburg, Cologne, Leipsic, Luxemburg, Munich, Prague, Vienna. *Total*, 7.

SCHOOLS OF NAVIGATION.—Bremen, Cattaro, Dantzic, Emden, Fiume, Grabow, near Stettin, Hamburg, Hanover, Königsberg, Lübec, Lussinpiccolo, Memel, Papenburg, Pillau, Ragusa, Rostock, Spalato, Stettin, Timmel, Triest, Wustrow. Zara. *Total*, 22.

VETERINARY SCHOOLS.—Berlin, Dresden, Giessen, Göttingen, Hanover, Carlsruhe, Marburg, Munich, Münster, Schwerin, Stuttgardt, Vienna. *Total*, 12.

SURGICAL SCHOOLS. (Distinct from medical faculties in the Universities).—Berlin, (two), Brunswick, Breslau, Dresden, Frankfurt, Hamburg, Hanover, Laibach, Linz, Magdeburg, Salzburg, Vienna. *Total*, 13.

POLYTECHNIC SCHOOLS.—Augsburg, Berlin, (two), Bochum, Brunswick, Breslau, Brünn, Chemnitz, Danzic, Dresden, (three), Echternach, Elberfeld, Erfurt, (two), Gratz, Hanover, Jena, Carlsruhe, Cassel, Königsberg, Magdeburg, Munich, Nuremberg, Prague, Rostock Stuttgardt, Vienna, Wiesbaden. *Total*, 30.

SUMMARY.

Architecture, ...	22	Music, ...	7
Mining, ...	7	Navigation, ...	22
Forestry, ...	18	Veterinary, ...	12
Commerce, ...	19	Surgery, ...	13
Military, ...	30	Polytechnic, ...	30
Agriculture, ...	46	Total,	226

IX. PLAN OF AN AGRICULTURAL SCHOOL.

BY JOHN A. PORTER, M. D.

Professor of Agricultural Chemistry, in the Yale Scientific School.

An Agricultural School worthy of the name, is one of the most evident and pressing needs of the country. We are to a great extent, a nation of agriculturists, yet without an institution in the whole length and breadth of the land, which furnishes the proper instruction to the agricultural community.

Professorships of Agricultural Chemistry, indeed, exist in two or three institutions, but away from farms, without means of practical illustration and experiment, and unsupported by other branches of instruction, which would give completeness to an agricultural course, they languish, as they must continue to do, while they stand alone.

These Professorships form no exception to the statement that the country is unsupplied with adequate Agricultural instruction.

The wants of the country in this respect, are obvious.

First. A well stocked and well furnished farm, fully up to the standard of the best agriculture in the world, to show what the best existing practice is.

Secondly. An experimental farm, to improve on the best practice and advance the cause of agriculture.

Thirdly. The means of instruction in all the Sciences connected with the culture of the soil.

The Farm should comprise in its buildings and yards all of the improved arrangements, for the feeding and wintering of stock ; all of the manure-saving and manure-making, and labor-saving contrivances, all of the improved machinery and implements which have been submitted to the test of experience, and been proved to be of economical value. Every thing should be planned and constructed from the outset with a sole view to economy and profit, and in the subsequent history of the farm, it should be regarded as successful, just in proportion to its pecuniary returns. The farm should be stocked with cattle and horses, and all other domestic animals of different breeds, including as great a variety as possible, in order to show the characteristics of the different races, and give to pupils the opportunity of studying their peculiarities. It should be under the superintendence of a thoroughly practical man, and be conducted at his own risk, and for his own profit. Model farming in any practical and economical sense of the term, is not likely to be realized on any other plan. It is by no means so important that the farm should be the *best* farm in the country, as that it should be the best *managed* farm. If it should furnish obstacles to be overcome in the character of its soil, necessity of draining, soil mixing, or other improvements, so much the better, rather than the worse. The farming of a rich virgin soil calls for no aid of science, and demands no skill. The obstacles are just what are wanted to illustrate what skilful scientific farming is, where the farmer, as well as nature, has something to do.

The person in charge of the farm, should have access to all agricultural publications of value, both American and Foreign, and keep himself informed in relation to all new implements and fertilizers, and other suggested improvements; but would be under no obligation to put any of them in practice, unless satisfied of their economical value. Improvements requiring large outlay, such as draining and irrigation, if evidently of great utility and of permanent value, would be executed at the expense of the institution. The management of the farm should be decidedly conservative, and furnish an example of progressive, but prudent farming, conducted with a sole view to profit; including under this term that lasting advantage which consists in the improvement of the soil. All this would be secured by making the income of the farmer dependent on the produce of the farm itself, precisely as if the land he cultivated were his own.

The second great want of the country, in an agricultural point of view, is an *experimental farm* connected with the practical farm as above described, and devoted to experiments in Scientific Agriculture. The subjects for experiment of practical importance to every farmer, are innumerable. Rotations of crops, admixture of soils, the preparation and use of manures, the diseases of plants, the introduction of new plants, are a few among the number. The experimental farm should be under the control of Chemical, and other Professors, for experiments in their several departments; and be regarded as purely experimental ground, where the idea of immediate profit, should not interfere in the least degree with perfect freedom of investigation. The other or main farm being conducted with a view to profit alone, the accounts of the two should be kept entirely distinct, and all material passing from one to the other, should be paid for with a fair equivalent.

The directors of the experimental farm would have occasion to superintend experiments in feeding, and in the dairy, which would be best made on the associated practical farm, and would increase to some extent the labor there required; but this also, should be paid for, and the character of the latter as a solely practical farm, be in all respects maintained.

The experimental farm would not probably be remunerative in a pecuniary sense, but it would be the means of testing for the associated farm and the country, the value of suggested improvements, of teaching the science of experiment to the pupils of the institution, and from time to time of bringing to light new and important truths in Scientific Agriculture.

A Museum of Agricultural Products is another essential feature of an Agricultural Institution, such as the country needs. It should exhibit grains, roots, fruits, woods in all their variety. Its collections would serve for the purpose of illustration in Lectures on Agricultural Botany, and Physiology. A botanical garden connected with it would add greatly to its value.

A Museum of Agricultural Implements should also form part of its means of instruction. These would serve as illustrations of lectures on the mechanics of agriculture, in which these operations would be explained, and their comparative merits considered.

Such collections can be made at comparatively trifling expense. A suitable building being provided, the material to fill it would flow in from the liberality of farmers and manufacturers, quite as fast as could be desired.

A Veterinary Hospital, for the treatment of diseased animals of the vicinity of the farm, would also be an essential feature of the plan. It should be under the charge of a competent veterinary surgeon, who would give instruction in the nature and cure of the various diseases to which animals are subject.

The principal branches of Science which should be taught in an Agricultural School, are Chemistry, Meteorology, Geology, Mineralogy, Zoölogy, Entomology, Animal and Vegetable Physiology, Veterinary Medicine and Surgery. To these may be added Surveying, a knowledge of which is of the utmost convenience to the farmer, and should form part of a liberal agricultural education.

Chemistry stands prominent in the list, in view of its superior and acknowledged importance. Agriculture aims at the transformation of earth and air into grain, and wood, and fruit. The process is, in a great part, chemical. Every dung-hill and compost heap, and square foot of soil is a laboratory. Every farmer, whether he would be or no, is a chemist from the very nature of his profession.

But, it is open to his choice to be an ignorant one, or to possess himself of the knowledge of the properties and mutual relations of the materials with which he deals. This knowledge he needs, and must obtain from the scientific chemist. It is none the less necessary if he never makes an analysis. It makes him a rational and economical experimenter, and thus puts him on the road to advance in his profession.

The importance of Mineralogy and Geology, which treat of the materials out of which soils are formed, and from which they derive their character, whose principles guide the Agriculturist in his search for fertilizing materials, and frequently furnish him with the most valuable hints in locating and improving his lands, is equally obvious.

The importance of Meteorology, or the knowledge of the relations of heat and moisture to the atmosphere, and the soil, and the plant, and of the laws on which change of weather depend, is no less apparent.

Although, not necessarily of every day application, all these branches form, properly, part of a liberal agricultural education. And so of all the other sciences which have been mentioned. The enterprising man, possessed of such knowledge, will find abundant occasion for its application, and abundant suggestions in its possession.

On the value of a knowledge of the principles involved in the breeding of stock, and the laws on which its improvement depends; of the diseases of plants, and animals, and of insects, injurious to vegetation, and the means to be employed against them, it is needless to dwell. Instruction in all these branches should obviously form part of an agricultural course.

What a centre of light would such a school as is here described be to the whole agricultural community. All purported discoveries in agriculture would come to it to be tested, and important truths developed by experiment would go forth from it to the world. Through its public museums, its well-arranged buildings, its variety of stock, and latest improvements in every department, open to the public, it would become the direct instructor of the whole farming community. Through its pupils, it would disseminate widely the varied practical information which its course would furnish. And, beyond all this, it might be made the means of eliciting the experimental labor of hundreds of intelligent farmers throughout the country, for the decision of the important agricultural questions which are still unsettled.

The latter point is worthy of some further illustration.

Agricultural experiments, as at present conducted, are so extremely unproductive, not so much for want of care in their execution, as on account of their isolation. An experiment which belongs to one set of conditions of soil, exposure, and climate, is taken as final for all circumstances; or, if repeated, under different circumstances, with different results, the consequence is rather a diminished faith in all experiment, than a conviction of the necessity of multiplied and varied trials.

The only remedy is a carefully organized system of experiment. Suppose such a system once in operation, and, instead of individual experiments, comparatively valueless from their isolation, the same experiment made in a hundred different places, during the same year, under all the varieties of soil, climate, and exposure which a hundred different localities combine; suppose the results of such a system of experiment carefully collated and compared by its proper head, and the latent principles which they contain deduced—it would not be long ere the innumerable mooted questions, which float through our agricultural journals, and hold their place there year after year, would give place to definite views, resting on the sure basis of accumulated experiment, and take their place as solid stones in the edifice of agricultural knowledge.

But, such a system must have its well devised plan of experiments, and its own experimental ground; asking coöperation, for fear of being burdensome to its coadjutors, only where coöperation is necessary. All these, such an institution as is here described, with its corps of instructors, would furnish, and thus, beside doing its own independent work, be the means of eliciting, to a great extent, the zeal and labor of intelligent agriculturists throughout the country in the cause of agricultural improvement.

With the help of such a system of experiment, it is scarcely haz arding anything to say that an amount of progress in agriculture is possible in ten years, which it would otherwise take a century to accomplish.

Lastly, such an institution should be the source of published information to farmers in relation to its experiments, and all improvements to which they may have lead. It should also keep them informed of the comparative value of all fertilizing materials offered in the market, for the use of agriculturists. It should even control, as it would be able to do by its published analysis, the manufacture and relative price of these articles, and thus secure the farmer against the fraud, to which he is constantly exposed in the sale of spurious and worthless articles.

In founding an Agricultural School, such as is here described, great advantage will be realized by connecting it with a University already established. Where Professorships of Chemistry, Geology, Mineralogy, Meteorology and Engineering already exist, with well furnished laboratories, and extensive mineral collections, the foundation is already laid, and half of the expense has already been incurred. Such a basis may be regarded as $100,000 at the least, already contributed to the cause of a great Agricultural School.

An equal sum in addition, would be needed for the other departments although a beginning might be made with less. But even supposing the amount doubled or even quadrupled, it could not be regarded as large, when considered with reference to the magnitude of the interests involved, or the results which might reasonably be anticipated. An annual increase of the value of land in the State of Connecticut alone, by the one-hundredth part of one per cent, as a consequence of the knowledge which such a school would diffuse, would more than pay the interest on such an endowment.

An addition of one peck per acre to the potato crop of the same state would pay it.

An increase of one-thousandeth in the product of hay, or one three hundredth in the dairy produce of the state, would cover it.

It cannot for a moment be doubted, that practical results of immensely greater value than these could be reasonably expected to flow from such an institution.

Looking at the subject from a national point of view, the immense importance of the diffusion of knowledge on agricultural subjects, is still more strikingly impressed.

The number of horses in the United States, is estimated in the last Census report, at about four and a half millions. An addition of one dollar per head to their value, as a consequence of a better knowledge of the principles involved in the breeding and rearing of these animals, would amount to four and a half millions of dollars.

The number of neat cattle is estimated at about eighteen millions. At the moderate valuation of twenty-five cents per head, an improvement of one per cent. would be equivalent here also to an increased value of four and a half millions of dollars.

On taking a more general view, an addition of one per cent. to the annual agricultural produce of the whole country, would amount to sixteen millions of dollars per annum. Yet the possibility of such increase in the value of stock and the products of the soil, is not a matter of question, nor is there any room for doubt that, all that is in the way of it, is the lack of the knowledge, which such institutions as we describe are calculated to diffuse.

Of the practicability of such schools, supposing the funds at hand, there can be no reason for doubt. The land required is to be had in almost any locality for a fair equivalent. Information in relation to foreign improvements in agriculture, is readily accessible, either in publications or on the spot. Instruction of the highest order in practical agriculture can be supplied from the ranks of our own best farmers. The means of instruction in the sciences connected with agriculture are no less readily attainable.

Neither is there any question as to the demand of the country for liberal agricultural instruction, and the patronage which such schools would receive.

In addition to all the material advantages which would flow from their establishment, they would have an influence which can scarcely be estimated, in elevating and dignifying the calling of the agriculturist. This they would do by their direct influence on those now engaged in Agriculture, and again, by calling forth to its calm and ennobling pursuits, talent and wealth which are now compelled, to seek the dignified associations of learning in other professions.

By extending the course of instruction, for those who should desire it, into correspondence with the professional training required for the pulpit and the bar, the wants of the class referred to would be supplied, and a valuable acquisition of means and influence, which are now expended in other directions, be secured for the cause of Agriculture.

Schools, such as are here described, would give, in fine, to the Scientific Agriculture they would create, the merited rank of a learned profession, and thus dignify as well as advance that branch of industry which lies at the foundation of our national prosperity.

NOTE.—The writer deems it proper to state that he has learned that a plan of coöperative agricultural experiment, with a central farm and bureau, similar to that here proposed, has been suggested by Geo. J. Pumpelly, Esq., of Owego, N. Y., and that the importance of a model farm, of exclusively practical character, has also been strongly urged by S. W. Johuson, Esq., of New Haven.

Those who are interested in the subject of the preceding article, will find, in Barnard's *National Education in Europe*, an account of the system of Agricultural Education established in France, as it was in 1854, with a particular description of the organization of the National Agronomic Institute at Versailles, the Veterinary School at Alfort, the Agricultural School at Grignon, near Paris, and the Subjects of Study and Course of Lectures in the Agricultural School at Grand Jouan, in Brittany.

The Institute of Agriculture and Forestry at Hohenheim, near Stuttgardt, in Wurtemberg, which Prof. Bache pronounces "the most complete agricultural school in Europe."

The system of Agricultural Education in Ireland, under the administration of the Commissioners of National Education, with a description of the Model Farm and Agricultural School at Glasnevin, and the Model Agricultural School at Dunmanway.

MORAL EDUCATION.

THE BEST METHODS OF TEACHING MORALS IN COMMON SCHOOLS.

BY REV. CHARLES BROOKS, OF MEDFORD, MASS.

This world is our school-house, God is our Teacher and the Bible our class-book; and yet there are in the United States, two millions of children, between the ages of 5 and 15 who receive no moral culture; so many heathen in the midst of Christianity; barbarians in the midst of civilization! Do you ask, what are we going to do with this increasing army of future voters, who begin to think they hold the balance of power and are therefore preparing to take command of the country. That is not the question. The question is, what are they going to do with us? I can find but one way of disarming the native savageness, and of preventing the probable future venality of this mass of our own and foreign population; and that is, *by having a law that shall compel every child to go to school*, and then *by having moral nurture secured to every pupil.*

That morals should be taught in every school I take for granted. That they *can* be taught in every school I also take for granted; because they are taught in hundreds of schools in this country. In the Kingdom of Prussia, religion stands first in every catalogue of school-studies and it is taught in every school. In Holland it is required to be taught, according to law, in every parish as a separate parish, but the clergymen must transmit his marks of merit, for each pupil, to the public school teacher, and those marks go to make up the relative rank of the pupil in that public school. In our country it is forbidden by law to teach sectarian dogmatics in public schools; but, not forbidden to teach morals. The question before us now is, *how can morals be most effectually taught in our common or public Schools?*

Can there be a more difficult problem presented for solution? It confessedly stands at the head of perplexing questions in this department on account of the jealousy of different religious sects. I undertake it with extremest diffidence; but, without angling for sympathy or wasting time in apologies, let us to our work.

What is it to *teach* morals in a school? It is to impart moral ideas to children's minds by words; and then, by exercise and example, to make those moral ideas become active principles, embodied in the life. The intellectual idea is first, as a cause; the good life is second as an effect.

Under the head of morals I include all the principles which should regulate the conduct of men: viz., justice, veracity, temperance, industry, chastity, economy, beneficence, love of truth, love of order, conscientiousness, obedience to law, obedience to parents, veneration of age, duties to brothers and sisters, duties to the young, to the state, to the cause of light, liberty, and love. To do violence to any of these principles is to do an immoral act; it is to go contrary to the will of God and the commands of Christ.

Having defined what is meant by morals, and what it is to teach them, the *modus operandi* is the next question.

I apprehend there are four ways or methods by which these moral principles may be taught in the schools of the United States. Three of these modes are direct; one indirect. The indirect mode I will mention first; and it is through the

Family. If parents communicate moral ideas to their children's minds by fireside instruction, and communicate spiritual glow to their hearts by eloquent goodness of life, then their children go to school prepared and willing to receive moral culture there, and prepared also to set before the school, winning lessons of moral beauty. Such children become so many silent teachers of morals in the school. If children receive no spiritual developement at home, then they go to school with calloused hearts. In one sense, therefore, parents are to decide whether moral culture can or cannot be prosecuted in the school.

Again. If parents in their families, will speak respectfully and affectionately of the teachers of their children, then those teachers can get hold of the minds and hearts of their pupils; but, if parents speak distrustingly or contemptuously of the teachers of their children, then those teachers can do their children very little good. Parents, therefore, have it in their power morally to strengthen and build up the school or to weaken and destroy it. The family is God's primary school, introductory to the public school. In the family every thing and every body teaches. There are infinitely complex and indescribable feelings, which there give the greatest force to ideas and an unconscious influence to conduct. These manifest themselves in the glance of a mother's eye, the tones of a father's voice, and the manner of a faithful friend. It is this mysterious something, which is all around us like an atmosphere, that truly and permanently shapes youthful character. The children think the family thoughts, catch the family manners, and follow the family aims; thus carrying the family morals into the school-house, as the grinder of aromatic seeds carries with him wherever he goes, the fragrance of his workshop.

My first mode, therefore, of securing moral teaching in the school, is to secure it in the family.

The second method of teaching morals in schools, is *by the voice and example of the teacher.* This method is direct. The whole practical philosophy of the school system may be summed up in these eight words, "as is the Teacher, so is the school." The nineteenth century demands a higher type of teachers; teachers who are more than a match for the intense mental activity of the age, and who can more than master its tyrannous selfishness. The 19th century imperiously demands, also, that the high and sacred office of teacher should be made a *fixed profession*, and that school instructors should be as fully prepared for their duties as is the clergyman for his. Teachers, teachers, yes, I say teachers have an inconceivable and paramount agency in shaping the destinies of the world. If the question be put to me,—which is the most important to the highest and most durable interests of society, viz., to have a competent pulpit orator for 1,000 grown-up persons, or to have a competent school teacher for the children of those 1,000 persons, I answer, that in my judgement it is the most important to have the competent teacher; inasmuch as the foundation and walls of a building are more important, on the whole, than its finish or its furniture. We have reached a period of the world when society needs whole men; men whose physical, intellectual and moral powers have been developed in their natural order, proper time, and due proportion; men, in whom each of these powers occupies the exact place in the grown-up *character*, which God ordained in the infant *constitution*. How can we have *such* men except by the early unfolding of their various powers? I say *early*. This work must be commenced as soon as reason dawns and conscience speaks. What so necessary as competent teachers of the young mind, and competent guides of the young heart? It is competent teachers, therefore, that I would use for inculcating moral truth and Christian virtue in our common schools. A stupid, unfaithful and vicious teacher, in a company of innocent children, is what the serpent was in Paradise.

It comes then to this,—that, if we have accomplished, purposely prepared, faithful and Christian teachers in our schools we *can* have and certainly *shall* have morality taught in them, both by precept and example. If we have not such teachers, we have no right to expect such instruction. As is the teacher, so is the school. Nothing can be truer. Competent teachers, whose learning is sanctified by piety, and whose characters are all radiant with love, will assuredly impart their nobility of soul to their pupils. Their spiritual magnetism will go out from them whenever innocent childhood presents itself as a conductor. Such teachers will unconsciously throw into the daily lessons some moral suggestion, moral hint, moral maxim, or moral query; thus giving moral polarity to every thing. Morals will thus act the part in the daily instruction, which oxygen acts in the atmosphere; *insensibly* mixed with other ingredients, yet the life of them all. Such teachers will be consistent. They will strive to be what they teach; and thus throw over all their instruction the beautiful illustrations of their own example.

Now it is very plain, that such teachers, who project themselves into the motives and affections of their pupils, will gradually, but insensibly, become a rule, a conscience, aye, a Bible to them. The sight of such an instructor will be to them as the beauty of holiness; because they know his heart is moved by generous impulses, and his life governed by lofty principles. In one sense he represents God to them. Such a teacher knows that our earthly life and our immortal hopes are intended *to form character*, and that character does not come of mathematics and logic, so much as from the daily exercise of the intellectual and moral faculties united, and from the daily practice of good deeds. When he reads the Sacred Scriptures each morning (and no school should ever be opened without reading them), he will select those parts which will most readily attract juvenile curiosity and most seriously impress youthful hearts. When he leads in their devotions (and this service should always follow the reading of God's holy word), he will take great pains to pray like a child, and not like a man; and in all religious services he will be specially moved by brevity and humiliation, by earnestness and simplicity to touch the deepest fountain of feeling in his pupils. By this reading of the Scriptures and offering of prayer he will teach them that they should begin every thing with God; that they should never plan what they dare not ask him to aid, and never do what they may not ask him to approve. Over the school-room door of one of the Normal schools in Germany are these three words "Pray and Work." This command our Christian teacher would obey and persuade his pupils to obey. Thus he would make morality permeate all true culture, and seize every little incident whereby he could expand the idea of right or deepen the love of truth. I say, that the teacher who is thus filled with Christ's holy spirit and God's holy love, can no more abstain from teaching morality in his school than he can abstain from breathing. My second practical method, therefore, of teaching morals in schools is to have competent teachers, who are fully able and ever ready to do in this department, what God and nature require to be done.

The third practicable method of teaching morals in our public schools is by *books.* The Bible should occupy the first place in schools. Whether it should or should not be introduced, is a question I would not consent to entertain; for, if God's own word is not to be read by his children, I know of no book that should be.

There are good moral class-books which might be used with great effect by the teachers. There is a small book called "Morals for Schools," written by a lady of Maine, which has done much service; but the best work of the kind, I think, is Dr. Wayland's "Moral Science." This great and good man has secured the lasting gratitude of the philanthropist and the Christian; and now, after a long, useful, and brilliant career, retires from his high position amidst the benedictions of the country. Let me now speak of our school-books, and I say, that books, like teachers, must have morality in them, else they can not impart it. Books, therefore, must be made with special reference to this paramount object. The reading books should contain interesting stories, dialogues, poems, parables, portions of natural history, descriptions of storms, seasons, atmospheric phenomana, biography of good men and women who have resisted temptation, and attained eminence by their moral force of character, biography of bad persons who have come to poverty, disgrace and ruin by yielding to temptation. The most valuable information, and the most attractive moral principles may be so united in a reading book, as to be imperceptibly introduced together to the young mind. The grammar book should teach its science thoroughly, but its principles should be illustrated by short and pithy maxims which contain the moral element. If the author of a grammar wishes to do it, he can make its pages luminous with Divine truth, without exciting the least surprise in any pupil. So the author of a geography, without any violence to his pupil's feelings, show the earth to be full of the riches of God; and thus make the footstool of the Almighty an altar of devotion. History, how it shows, at almost every step, the development of a vast, almighty, moral government! Half the facts of history are luminous with the steps of a divine providence. Why should not a history beam a similar radiance? Take astronomy. How irresistably that science leads to our trust and adoration of God; and while it assures us that "an undevout astronomer is mad," should not the books that teach this sublime science, be full of light from the Sun of righteousness? Then there is arithmetic; and even from this least promising of departments, a child may be taught to number his days so as to apply his heart to religious wisdom. If the makers of school-books resolved to give to every book a true moral and spiritual polarity, they could do it without betraying the religious sect to which they belonged.

I hardly, therefore, need say, that we need books with a vastly higher type of character than those in common use. We need books which do *not* put asunder what God has joined together. We need books charged with moral electricity, which will flow by an insensible stream into the student's open soul.

Examine all the school-books used in the public schools of the United States; and you will say that 19 out of 20 go upon the supposition that the intellect only is to be cultivated. You would hardly guess from them, that a child had a heart to be sanctified, as he has a head to be enlightened. I say, then, that we need school-books upon a new plan; books which embrace the whole complex nature of childhood; books which look at the world, at man, at truth and duty, from God's angle; books which so communicate the divine ideas in science, and in life, that they can make us think God's thoughts after him. I see no reason why we should not have such books; and when we *do* have them, what a mighty power will they become for infusing the eternal principles of Christ's morality into the soul of inquisitive and impressible childhood. And this is my third way of teaching morals in schools.

My fourth and last method, is this: to introduce *voluntary discussions* on moral topics. The head master should preside over, and direct them. Such discussions would incidentally teach children grammar, the art of expression before numbers, the laws of fair debate, the principles of just criticism, the laws of order, &c.; but, my plan is to use them for teaching moral truth with exceeding distinctness and power. A book of debateable questions, embracing history, biography, government, domestic life, play, work, virtue, vice, &c., should be prepared with special reference to such a school exercise. If such a book does not exist, let the teacher give out such a question from his own mind as he knows to be fitted to his pupils; such questions as the following:

1. Can a person be justified in telling a falsehood under any imaginable circumstances?

2. Is every citizen morally bound to vote in the election of town, state, and national officers?

3. Is every person, who owns property, morally bound to have a written will and testament?

4. How far is a good brother or sister morally bound to help a bad brother or sister?

All human life and human history would furnish the teacher with topics or suggestions. Almost every newspaper might contain records of demoniacal crime or godlike virtue, which could be made fertile in moral impressions. Let the teacher give out his question, and kindly ask each pupil to express his opinion upon it. This exercise, after a few trials, as I know from experience, gets to be very interesting to the pupils. Look at this matter closely. By this process a moral principle is brought palpably before each child's mind. A vote upon the question is to be taken at the end of the discussion; and each vote is secret, written on a scrap of paper, with the voter's name attached. Is it not plain, that each young mind in that school will listen to the question, dwell upon it, turn it over, and turn it round, and try to see where the truth lies? As different speakers give their opinions, the whole assembly waves with emotion, and thoughts are suggested to many minds which no common teaching could educe. Now, what is the effect of this exercise? Is it not to bring soberly before each mind an important moral principle, and then to apply that principle to actual life? Each child knows that he must write down his opinion in his vote; and how certainly will this lead each one to give the best judgment he can form. Is not this direct and powerful moral teaching in school? This mode makes use of the whole school, to teach that school, Christian morality. By this exercise the ideas of right and wrong are entertained by each pupil, and then brought to decide upon moral differences. This exercise, therefore, converts each mind from the *passive* to the *active* state; the only state in which a child learns. The young thoughts kindle as they dwell on the suspended question. The whole soul begins to move, the curiosity is wide awake, the feelers are all out, the reason compares, the judgment weighs, conscience decides, and open side is taken for the right. And I ask if this is not moral teaching? How easy, how natural, how persuasive is such an agency; and how perfectly free from all sectarian prejudice! Without suspecting the philosophy of the process, the child insensibly becomes imbued with spiritual ideas, moral truths, practical rules, and Christian motives. Without knowing it, he is lifted up, in company with his classmates, into the higher regions of a divine life, and that life becomes the *fashionable* fact of the school. Thus this exercise gradually brings out the divine image in the young and moulds them into a resemblance to the "holy child Jesus."

I am now prepared to state a most important fact. By this easy and delightful process of self-culture, the children have set up in the midst of their school *a common standard of right; a common conscience; a school conscience.* By means of two such exercises in each week, they have created, in their midst, an intellectual moral umpire to whose eternal principles they bow. To this they refer when they make nice and moral distinctions, and when they measure moral wrong with precision. Thus the government of the school is carried on by the scholars. Is not this securing spiritual development?

How natural and practicable is this method! But, I have one more which you may think better yet. It is this. To convert the whole school into an amicable jury for the purpose of trying imaginable cases of disobedience in the young.

Whenever a pupil commits an offense let the master conceal his name and call him *Justus*, and then the whole school be called to see that justice is done to the unknown offender. Let *Justus* have a chance of explaining and vindicating himself by counsel. Let him be dealt with according to the equitable rules of our common courts; so, that if he is condemned he may know why. The master must be the final judge; and the offender is never to be punished in the presence of any one, except the master who administers the chastisement. The method of conducting such a moral lesson may vary according to circumstances; sometimes only a friendly consultation; sometimes a silent vote after the master has explained all the facts. Another mode might be this in extreme cases. Let the teacher select three boys or girls who are to act the part of accusers of Justus, and let the school select three who are to plead for him. Let the rest of the school be jurors, who are to give their vote or verdict on paper, each one writing his name under his verdict. Let witnesses be summoned and give in their testimonies, and let every thing be done which will bring a just verdict. If difficult points come up, so much the better; let the teacher expound them.

In a trial of this kind, there will be an intense interest awakened in every pupil's mind. Each one knows that he has to write his verdict; and he therefore is exceedingly desirous of understanding the case. He will listen to the evidence, follow the pleadings on each side, weigh the objections, balance the probabilities and feel his moral responsibleness. He will desire to do what is right, and especially desire not to do wrong. In such a trial, how unconsciously would come up the principles of equity, the rules of morality, the commands of parents, and the will of God. Opportunities would occur, during a year, of teaching every ethical principle, and scrutinizing every department of human conduct. And be it noted also, that this teaching is in a form never to be forgotten. Here is a great result; these trials would show what? They would reveal the requirements of morality and furthermore *reveal the direct application of its eternal principles to the every day conduct of life.* During the whole trial, moral truth and christian law would occupy the minds and move the hearts of the entire school. The rules of right and the maxims of virtue would not present themselves to the young minds there, as a theory or a guess, but as solemn, tangible, binding, immortal and practicable principles. Each child would get to understand that the principles of morality are omnipresent and almighty; that they are the rules of the divine government, and that they do not for a moment relax their benignant, all pervading requirements over the mind, any more than gravitation relaxes its power over the body. By such a trial each child comes to believe and feel that morality binds every thought, will, and act, thus connecting him with God and immortality, and thus bringing before him his future accountability. Now where a school exercise thus brings together moral principles and daily conduct, I ask if this is not the exact definition of teaching morals in common schools?

[The important subject of Moral Education and Religious Instruction,—involving the use of the Bible and Prayer in Public Schools,—has been presented at different times to the American Institute of Instruction, in well-considered lectures, several of which are printed in the Annual Volumes of its Proceedings. Among these may be mentioned, one by Rev. Jacob Abbott, in 1831; Rev. R. C. Waterston, in 1835; Rev. Joshua Bates, D. D., in 1837; George B. Emerson, in 1842; Rev. Herman Humphrey, D. D., in 1843; Rev. Calvin E. Stowe, D. D., in 1844.

The Hon. E. R. Potter, in his Report to the General Assembly of Rhode Island, as Commissioner of Public Schools, for 1854, has collected, with much diligence and judgment, the opinions of the best writers belonging to different religious denominations, on the subject of the Bible and Religion in Public Schools, for elucidation of an official decision which he was called upon to give as to the extent to which moral and religious education could be made compulsory in the public schools of that state. In this valuable document will be found a condensed view of the practice which prevails in different countries on the subject.—EDITOR.]

XI. THE CRIMES OF CHILDREN.

To any one whose finer feelings have not been blunted by contact with the world, there is hardly any sight on earth more sad, than a company of children in a christian land, seized by constables, condemned by courts, separated from their natural homes and friends, and shut up by walls, bars, and cells, in what, despite its more euphonious titles—is the prison-house of youth.

Sad as this is, it is a still more gloomy thought, that in almost every large town, boys are found who desire the magistrate to save them from the vice and misery into which their friends are dragging them, and who find a delightful relief in renouncing home and its freedom, for the jail and its bondage, the company of parents and brothers for that of recognized "Delinquents."

Even at our own doors, children of years, which the painters and poets in every land delight to picture as full of innocence and purity, are growing up diseased, degraded, stupid, vicious, and sometimes ignorant as heathen of any Gospel knowledge.

This state of misery is not limited to our own country. Upon both sides of the Atlantic, in lands despotic and free, Protestant and Catholic, the "Cry of the Children," is rising to heaven.

When a pestilential disease stalks through the world, it is not enough that physicians bring relief to individuals that suffer. Should all the sick be healed, our guardians of health would not have done their duty, were they to make no general observations upon the character of the epidemic, its cause, its proper treatment, and the means by which it might in future be averted. The Crimes of Children are both noxious and infectious. "Reform" is prescribed for every case, and great institutions are set apart, like hospitals, for the cure of the social disorder. But this is not enough. It is important to study the diagnosis of crime, to inquire into its extent, its character, its causes, and its cure.

Within a few years past, the press in England has sent forth many valuable works upon the Crimes of Children. For various reasons, and especially on account of the differences in our civil organization, the inferences which these works present, are not always, nor even generally, of importance in this land. American philanthropists, on the other hand, have been so much absorbed in that most important matter, the reformation of Juvenile Delinquents, that prevention of crime has not received the full attention it deserves. Yet on no subject is more investigation needed; on none is the coöperation of men in every social position, so much to be desired. The officers of police, city, and country magistrates, official and voluntary visitors among the poor, teachers in week-day and sabbath-schools, physicians, clergymen, all have it in their power to advance by observation and reflection, trains of research, which, if properly pursued, may develop the laws of crime, and suggest such means of prevention as will greatly diminish the present alarming extent of Juvenile Delinquency. The subject demands of philanthropists, not merely sympathy but study.

To stimulate inquiries in regard to the Crimes of Children, let us call attention to some of those points upon which investigation is most needed.

In the first place, it is important that *the character* of juvenile delinquency should be closely scrutinized. Such tables as are printed in the Reports of many of the Reform Schools, are far from giving to the public enough information. The classification of crimes which they adopt, is often based upon the official papers sent up by magistrates in different places, who do not agree in the principles upon which they pass judgment. We need fuller details than those which are contained in the simple words which are sometimes used to designate offences, "false pretenses," "stubbornness,"—even a knowledge of the circumstances under which the particular crime was committed that led to the offender's arrest.

We need also more full statistics in reference to *the extent* of juvenile delinquency. Every one knows that this is great, but who can give the figures? Even in those parts of our country where State Reform Schools and Houses of Refuge are established, not all young criminals are brought within their pale. Many still find their punishment in the city or the county jail. We also need such statistics as will show us the difference between city and country life, in the prevalence of crime, between Eastern and Western states, and especially such tables as will enable us to compare our country, and its democratic institutions with European states, and their fixed distinctions among classes.

These inquiries will lead very naturally to a third, the *causes* of crime among children.

We are well aware that the universal answer to this question is, that "their homes are bad." True as this is, it is not precise. We need to know more, to follow up some such train of inquiries as this: Are the parents of the child living? are they able to work? are they intemperate? are they ignorant? have they ever been in jail? is the house comfortable? the table well supplied? what sort of books are in the family? have the children who are convicted ever been to church, to sabbath-school, to day-school? have they been allowed to go to the circus and the theater? where and with whom have they passed their play hours? have they ever been taught to work, or required to learn a trade? have they ever used ardent spirits? can they read and write?

The answers to such questions will soon bring us to learn what measures can be taken for *the prevention* of crime. Many instrumentalities of this kind are already efficiently at work; more can undoubtedly be contrived. In England, within a short time past, not less than twenty-five small "Homes" for poor boys, have been commenced on a plan not unlike that of DeMetz, at Mettray, and of Wichern, at Hamburg. It is important for us to ascertain whether such establishments are not far more serviceable in preventing crime, than all our large prisons. We do not conceal the fact of our own predilection for these "homes;" we desire to learn whether or not they are applicable to the wants and woes of our own land.

We likewise need an investigation more thorough than has recently been made into the proper plan of managing our Reformatory Institutions. Granting that crime cannot be entirely stopped by the best preventative agencies, it is important to learn how those who have commenced the criminal career, may be arrested in its progress.

For this purpose, let direct inquiries be made into the after lives of all who have been inmates of these penal establishments for youth. Let a careful examination be instituted into the comparative results of different courses of discipline. In a word, let the whole condition of existing houses of refuge, be brought before an enlightened and philanthropic public.

When the crimes of children, in their character, number, and causes, are fully understood; when the means of prevention are properly employed, and methods of reformation are rightly appreciated, one great portion of human misery and degradation now existing, will disappear, and one great step will have been made toward universal happiness and comfort.

To such investigations, the readers of this Journal will again be invited

XII. SYSTEM OF PUBLIC INSTRUCTION IN ST. LOUIS.

The system of public schools in St. Louis, although of recent origin, will compare favorably with that of any of the older cities in the United States, in the efficiency of its organization, the extent and thoroughness of its course of instruction, and the liberality with which its teachers are paid, school-houses provided, and its administration sustained.

Although selected as the site of a city as early as 1764, by Laclede, the first brick house was built within the present limits of St. Louis in 1813, and the first steamboat arrived in 1817, and down as late as 1830 the population amounted to only 6,694, and in 1837, the date of the first organization of the public schools, it could not have exceeded 12,000. By the United States census of 1850, the total population of the city, was 77,850, including 2,650 slaves, and by a local census in 1852, was 94,819. The assessed valuation of property, although below its real value, in 1853 was $39,397,186, upon which a tax of $41,400 was collected for city purposes. Of this tax, about $280,00 was appropriated to the support of public schools, which was increased from the income of school lands and other sources, to $87,000, in 1853–4. In pursuance of the wise policy early adopted by the General Government, in organizing new territories and states, to set apart a portion of the soil of each, to educational purposes, the act of Congress of 13th June 1812, makes it the duty of the United States Surveyor General in Missouri Territory, to survey and fix the out-boundary lines of certain old French towns and villages named in the act, and among them, St. Louis, "so as to include the out-lots, common field-lots, and commons thereunto belonging." If this provision of the act of 1812 had been strictly complied with, the out-boundary of St. Louis properly run, would have, embraced large tracts of land, to which individuals had no rightful claims, and to which the growth of the city, in population and business has since given a value, sufficient to have supported a complete

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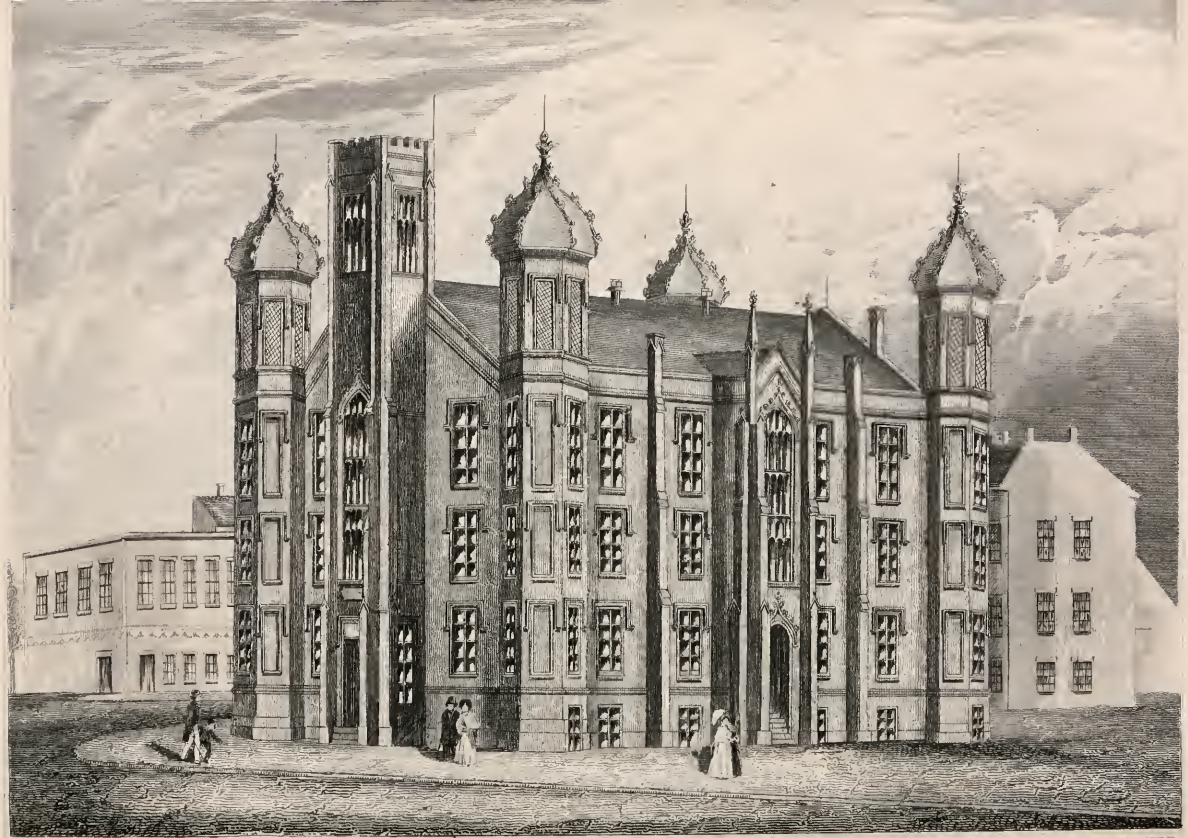
[*] The principal items in this sketch are drawn from the first Annual Report of the General Superintendent (J. H. Tice,) of the St. Louis Public Schools, for the year ending July 1st, 1854, which contains a minute history of the growth of the system, the condition of the funds, and the schools.



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M. KERSHAW, ENGRAVER.

system of public instruction, from the primary school to the University, in its most perfect appointments of buildings, teachers, libraries, and apparatus. After twenty years of litigation, and expense of $50,000, the friends of public schools have succeeded, mainly by compromises, in realizing thus far a fund of about $400,000, which yields an annual income of about $14,000. The lands belonging to the Board, are valued at about $1,000,000.

On the 30th of January, 1817, the Legislature of the Territory of Missouri passed an act, entitled " An act to incorporate the Board of Trustees for superintending schools in the Town of St. Louis." This act appointed General Wm. Clark, William C. Carr, Col. Thomas H. Benton, Bernard Pratte, Auguste Chouteau, Alexander McNair, and John P. Cabanné, Trustees. The powers of this Board of Trustees, as specified in said act, were to " have full power, to take and hold by gift, grant, or otherwise, any estate either real or personal, which may be given for the use of schools, and to lease, rent, or dispose of, to the best advantage, all the lands and other property, which hath been, or may be given by Congress to said town for support of schools, and appropriate the same with the avails of what is rented or leased, as by the law directed, to employ teachers, to direct the studies of youth, to make by-laws, rules and regulations for the good government of said schools; provided, that said by-laws shall not tend to give a preference to any religious denomination whatever."

Under this act the Board was organized, on the 4th of April following, with General Clark, then Governor of the Territory, as president, and Thomas H. Benton, as Secretary, The latter continued to discharge duties as Secretary till 15th of February, 1827.

This Board did little else than assert, and that not very vigorously, their claim to the out-lots and common field-lots, reserved for the schools. In 1833, a new Board was provided for by the Legislature, composed of Directors elected for each ward of the city. On this Board appears the names of Edward Bates and Judge Leduc, and measures were forthwith taken to ascertain the value of the property, remove trespassers upon the same, take a census of the children, and propose a plan for a school-house.

In April, 1838, a public school was opened for the first time in St. Louis, and soon after a second, and from that time new buildings have been erected, and new schools established, until there were at the close of the school year, in 1854, twenty-eight schools, viz., 13 Primary Schools, 14 Grammar Schools, and 1 High School, with an aggregate of 75 teachers, and 4193 pupils.

On the first opening of the school, the parents of the pupils were required to pay a tuition fee of $2.50 per quarter, which in 1847 was abandoned, and the schools made free to all, poor and rich.

The Directors commenced with paying the teachers a rate of compensation, which at the time commanded the best educational talent in the country. But a different policy, obtained after two or three years—the salary of teachers were reduced—good teachers could not be secured, and, if obtained, could not be retained against the competition of better wages elsewhere. A constant change of teachers, and but few applicants of the right sort, was the result. Under these circumstances, Mr. Tice introduced the following resolutions to the Directors, which, after an animated discussion, were adopted:

"*Resolved*, That an examination of applicants for situations as teachers, be held on the 5th day of July next, and that the Secretary give notice in the public prints, of the time and place of said examination. And further, be it

Resolved, That in the event this Board should not be satisfied with the qualifications of such applicants as may present themselves; or in the event, that not a sufficient number of persons qualified to teach, shall present themselves for examination: then this Board will employ an agent to proceed to the eastern cities to hire the requisite number of professional teachers; and that the President and Secretary be authorized to employ said agent to carry this resolution into effect."

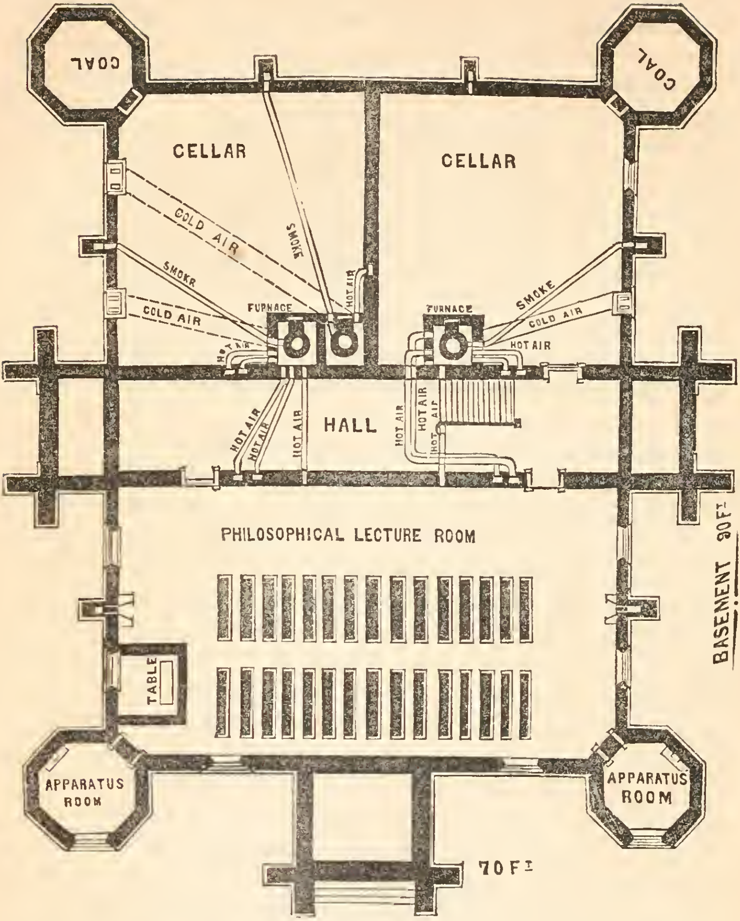
Mr. Edward Wyman, principal of the best private school in the city, was appointed the agent, and faithfully discharged the duties imposed. In August, he returned from the east, taking with him fifteen teachers, several of whom are still in the employ of the Board. Upon their entrance upon the duties assigned them, they immediately established friendly, cordial, and confidential relations with the teachers before employed. Consultations for mutual information, and interchange of views took place; a Teachers' Association was formed; and by its deliberations, the present system was established, and a systematic course of instruction was adopted for all the schools. A scholar can change schools from one part of the city to another without any loss of time or progress. Go where he will, he will find the same principles of classification, the same studies, the same text books, and substantially the same methods. This work was accomplished by the teachers, in the meetings of the Association, acting in harmony with the Directors.

In view of the experience of St. Louis, the Superintendent makes the following remarks on the cost and efficiency of private schools as compared with good public schools of the same grade.

"That the system of public instruction possesses immeasurable advantages over the private system is too palpable to be questioned. The private teacher either more or less has to sacrifice his independence and a sense of duty, to accommodate his requirements to a conformity with the whims and caprices of the parent and child, or of both. To exact as little study and mental labor as possible from the pupil, is generally acceptable to pupils, and makes the teacher popular with them; and popularity with the pupils is synonymous with popularity with the parent. But thorough scholarship, efficient and varied mental discipline, clear conception of principles, and the power of elucidating them, and legitimating the conclusions to which they lead, are incompatible with the tenderness with which a private tutor has to handle his pupils, so as to give them no offense. The public teacher has none of these influences to make him swerve from the line of duty for the sake of policy. He, to be sure, and properly too, is subject to public opinion; but this public opinion is in favor of a fearless performance of duty, and a faithful discharge of the trust committed to his hands. It is only by a wanton and systematic outrage of the principles of humanity, that a teacher, like every one else that does so, becomes odious to the community. It is never a matter of, any concern with him whether he pleases or displeases this or that child, or parent; but his only concern is, to know and do his duty, and faithfully to administer the trust reposed in his hands by the Directory. He has but one rule to govern his conduct, and that is the line of duty, which he is bound to pursue, letting consequences to takes care of themselves. The Board prescribes conditions upon which any and all can enjoy the benefits of public instruction: those who will not comply with these conditions, must forego the privileges; and for no man, it matters not what his station, or how great his wealth, will these conditions be changed.

"The public system has not only the advantage in general efficiency, but also in economy. In our Primary Schools, the average annual cost of educating one pupil is about five dollars; in private schools it averages thirty-six dollars; in our Grammar Schools the average annual cost is about $12 75; in private schools for the same studies the average is $60; in our High Schools the average annual cost of educating one pupil is about $30; in private schools the same studies, average $90. The average annual cost per pupil in all the Public Schools for the year just closed was $10 32; in private schools the average is $50, per head.

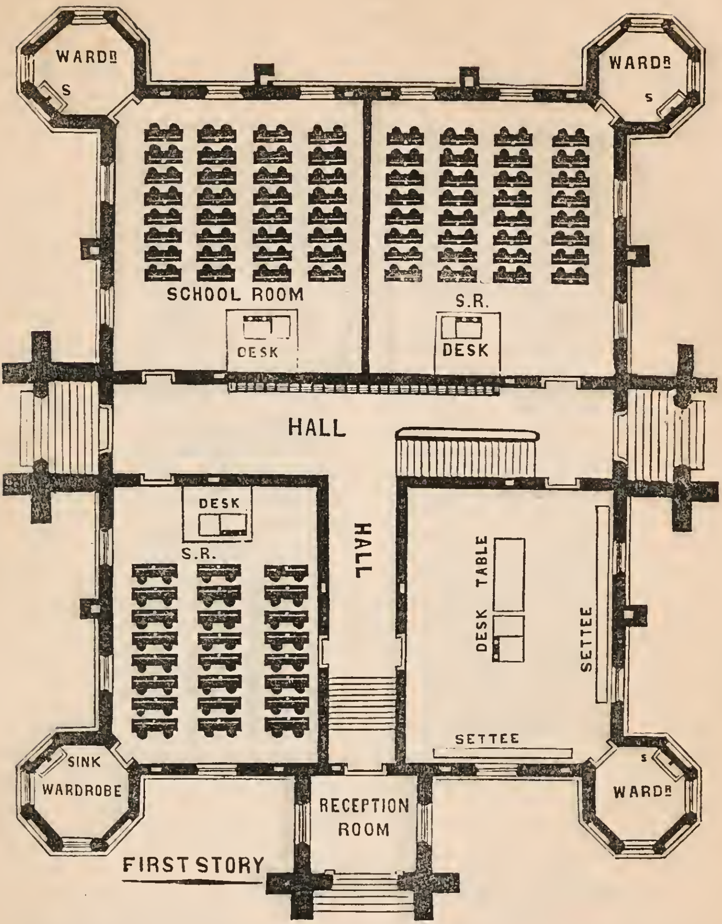
Fig. 1.



Plans and Description of the Building designed for the Public High School of St. Louis, Missouri.

The building in its extreme length is one hundred and six feet; and in its extreme width eighty-four feet, including towers and transepts. The body of the building is eighty-four feet, by sixty-seven; main height seventy-one feet; and to the apex of the roof eighty-six feet. Front square tower, used respectively in each story for reception room, library, museum, and astronomical observatory, is one hundred and six feet high. Octagonal tower flanking each corner, is one hundred and two feet high. The wings or transepts on the sides, are thirteen by seventeen feet, with large gothic windows, seven by thirty-four feet. A similar window is in the large square front tower. All the windows have large cast iron hood moldings painted in imitation of stone; buttress caps, string courses, and wall copings, also of cast iron, and finished in the same manner; the roof is covered with slate, with copper gutters.

Fig. 2.



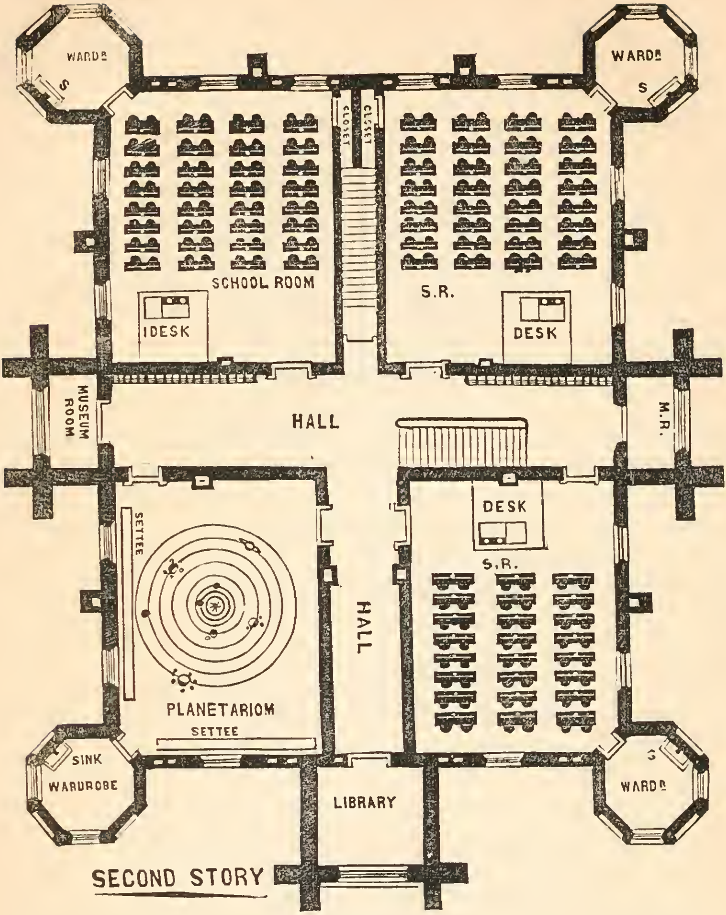
Transverse and longitudinal halls, divide the first and second stories into four rooms each, and each room is capable of accommodating seventy scholars.

The desks are supported in an entire new style, by means of a cast iron peristyle, with large pedestal and four claws for screws. The peristyle is placed in the centre of the desk, adding much to the comfort, cleanliness, quiet, and free ventilation of the room. The desks are made of cherry and varnished. The chairs, which are on the arm chair fashion, are supported similarly to desks, move on a pivot so as to turn one-quarter way round, and the iron work of both desk and chairs are neatly bronzed.

Wardrobe rooms in the towers, are attached to each school-room, with hydrant, and iron sinks for washing and drinking purposes.

The philosophical and chemical lecture-room in the basement, is sixty-one feet by thirty-one feet, with apparatus rooms in towers, with sinks and water; also,

Fig. 3.

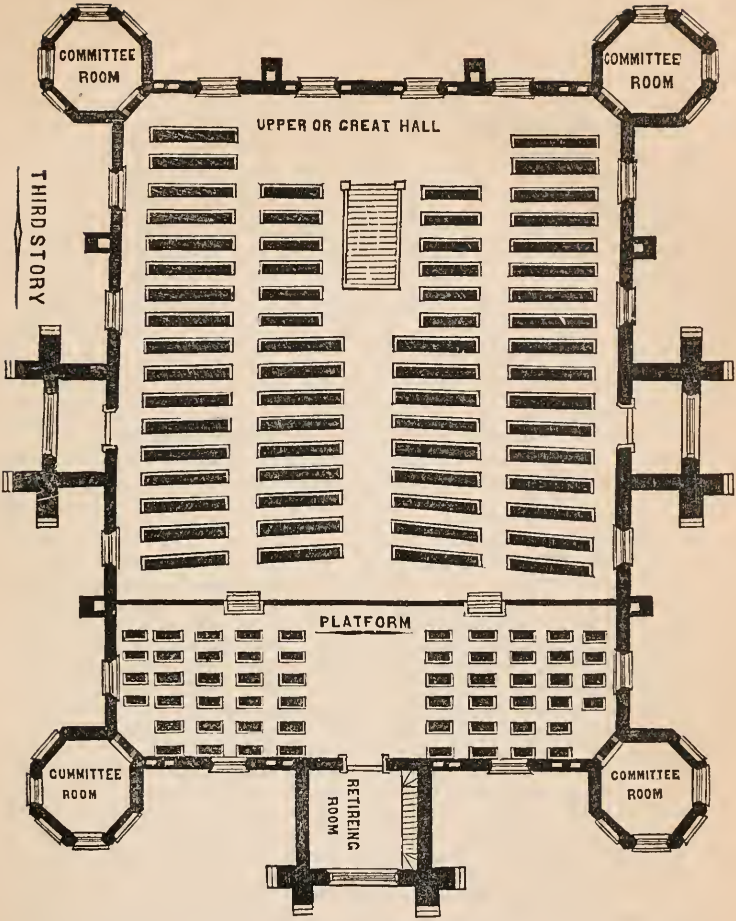


two fire places at each end of the room for experiments in chemistry and philosophy There are stairs leading directly to the philosophical and chemical lecture-room. The other basement is used by three furnaces for heating the building.

The upper, or great hall in the third story, being the full size of the building, is large and commodious, capable of accommodating six hundred persons. A large platform, twenty feet deep, and the width of the building is at the south end of the hall, to be used by scholars on examination day, and for recitation, declamation, and reading their exercises; also, for a stand for lecturers. There is a retiring room behind the platform in the front tower, for scholars to prepare themselves for performing respective parts in dialogue, &c. From this retiring room a flight of stairs ascends to the astronomical observatory.

The rooms in the octagonal towers of the third story are intended for committee

Fig. 4.



rooms for directory, or for private conference of teachers and parents, or friends, at general exercise, or on examination day. There are two museum rooms in the second story of the transepts, one for males and the other for females.

The entrance or reception room, for strangers and parents, is in the first story of the observatory, or front square tower on Olive street. Over the reception room is the library room. Perfect and thorough ventilation is aimed at, and the latest improvements to attain it, adopted. The stairs are broad and direct, giving free and easy access to, and from the building at all times, and securing against all accidents in case of alarm of fire, &c.

All the finishing of the school-rooms and halls, are grained oak, and varnished. Wardrobe rooms are to be supplied with double clothes' hooks; halls with umbrella racks, troughs, and places for overshoes, all made of cherry and varnished.

Mr. Tice, the Superintendent of the Public Schools, in his Report for 1855, indulges in the following remarks respecting the new High School Edifice:

This magnificent edifice is drawing near to completion; and when completed, St. Louis can boast of a model school edifice; one not exceeded, if equalled in the United States. In the interior arrangements it contains not only all the modern improvements and conveniences in school-house architecture, but several entirely new features. In exterior appearance it is one of the most imposing structures in the country; and if the organization prescribed for it, and the course proposed in it, are faithfully carried out, there will be no literary institution, whether public or private, that will give such an extensive, thorough, and practical education to the rising generation as our High School. Among the encouraging features of the age, is the munificent appropriations for the higher grade of school edifices. Boston and New York have high school edifices that cost each, including lots on which they stand, $80,000. Philadelphia, exclusive of lot, $43,000. Cincinnati, $28,000. Toledo, $32,000, and St. Louis about $50,000. It may be asked why build these impressive, costly and splendid edifices, when plainer houses will answer the purpose just as well?

The works of taste and of genius, as well as those of nature, elevate the soul above the ordinary details of life, and quicken the imagination. Athens, the capitol of Attica, a small state, with less than half a million of inhabitants, expended more in costly edifices, in ornaments for altars and temples, in statutes, in bas-reliefs, in sculpture, in hippodromes, aqueducts, baths, fountains, and in embellishments and decorations of the citadel, than the most powerful of modern states, numbering many millions of inhabitants. * * Were all these expenditures useless on the part of the Athenians? Why did they not, like the Spartans, hold to the utmost simplicity in all things, and banish works of taste, and the arts and sciences, from the state and city? And if they had imitated in this respect the Spartans, would they have acted a wiser part than in taking the opposite course; and banishing, instead of cultivating the arts and sciences, and rewarding with civic honors the authors of works of taste and genius? Who have laid humanity under the greatest and most enduring obligations, the Athenians with their magnificence, or the Lacedemonians, with their plainness? The only legacy of Lacedemon to the world, her heroic virtues, are embalmed and transmitted to us in the literature of Athens, her rival for dominion and glory, and who found both in pursuing an opposite course in regard to works of art and of genius. In art, Athens has forever given the world models of taste and beauty, fixed the standard of literature, and the terms of philosophy and science. Why? because the imposing grandeur of her temples, theaters, public edifices, arches, aqueducts, her sacred groves, filled with statutes of her gods and demigods, her assembling every thing within her precincts that could charm the eye or gratify the sense of beauty, awoke the genius of her people, fired the imagination, and inspired the souls of her poets, her orators, her heroes, her statesmen, historians and philosophers. Time and the violence of man have swept away the evidences of her power, piety, taste and luxury; but the forms of taste and beauty to which she gave birth, linger yet in the broken column, ruined arches, defaced statutes and crumbling edifices; and it is the highest ambition of modern artists to imitate or re-produce them. The stones of Athens will forever remain the instructors of mankind.

A splendid edifice is not without its uses to the community in which it stands. It is an expression of the refinement, public spirit, and taste of that community. The old behold it with pleasure, because it lights up their fancies with brilliant images; and the young with both pleasure and profit, because it speaks to them of grandeur and elevation, which shadow forth an ideal beauty that they are to copy in their lives: for vice and immorality have their roots in the gross hearts and perverted tastes of men.

XIII. LETTERS TO A YOUNG TEACHER.

BY GIDEON F. THAYER.

Late Principal of Chauncy Hall School, Boston.

INTRODUCTORY LETTER.

Mr. Editor:—In quitting the position of a teacher, which I have occupied for over forty years, I find myself not wholly free from the feelings that induced the veteran retiring tallow chandler to solicit the privilege from his successor, of being allowed on *dipping days*, to go into the shop and lend a hand in the prosecution of his long accustomed craft. But presuming that such an arrangement might not be satisfactory to *my* successors in the school-room, I ask the privilege of contributing some of my notions on the subject of *school-keeping*, to the pages of your Journal.

I claim little originality of method in the processes I adopted, or in the details of my routine of labor, which the ardent and conscientious teacher would not, as a general thing, find to result from a long course of determined efforts in the management and instruction of a large school. Still, my younger brethren, however gifted by nature, and improved by education and the study of books, and even with the advantages which result from the Normal School—that blessed institution of modern days—an institution whose aid every individual, male or female, who intends to become a teacher, should if possible secure, cannot reasonably be supposed to anticipate all the variety of mental machinery which it is necessary to put in operation, to secure the results at which the educator should aim, in adopting as his regular vocation, this important department of human labor. He may have a love for imparting knowledge; he may be ambitious of writing his name on the roll of fame, side by side with those who by the common consent of civilized man, have made the world their debtors, by their successful efforts for the improvement of the race. Still, something more is requisite—is indispensable to the complete success at which every teacher should aim—should resolve on at the outset of his course.

It would be almost unpardonable, at this period of the world's history, to attempt to show the necessity of education, the value of knowledge, the worth of sound principle, the advantages of self-control, the heaven-described requisition of "purity in the inward parts;" and all those subjects connected with the intellectual, moral, and social nature of man, which so properly enter into the school training of the youth of our country at the present time. This, therefore, is taken for granted; but, is it equally obvious that the young teacher has adopted this sentiment? Has made it the very basis of his action in the school-room? Has settled it in his resolution or purpose, that all these things are to be indissolutely connected with his plan of action? If he has not done this, his programme is essentially defective; and, if he has, the probability is that he will be aided to no inconsiderable extent, in the pursuit of his object, by the suggestions that experience may make, thus sparing him many a toilsome year of experiment, and saving his pupils from the disadvantages of inevitable failures, and, perhaps, from the infliction of unintentional injustice at his hands.

With these views, and for the satisfaction of still doing something in the way of instructing the race,—when I shall no longer be, Sir Walter Scott's "tyrant's of childhood,"—I propose, by your permission, Mr. Editor, to furnish a few letters for successive numbers of your periodical, addressed to a young teacher, in the hope of aiding, indirectly, the youth of our country in their efforts to become what that country has a right to hope and expect from them, when they shall enter on the duties of adult life, and, in their turn, help to shape the destinies of their native land, and of the world.

[We shall gladly welcome to our pages any communication, which our fellow laborer in the field of educational improvement, may forward for this purpose, and we, and our readers, we feel assured, will be happy to receive not a few, but *many* letters on the practical duties of the school-room, in which our respected friend has had so long, and such eminently successful experience. We take this occasion to say, that the readers of the Journal will be favored with similar communications from other eminent teachers in other departments of education.—EDITOR.]

XIV. DEPARTMENT OF PHILOSOPHY AND THE ARTS

IN YALE COLLEGE

The necessity of schools for thorough instruction in the various sciences and practical arts, is strongly felt throughout our land, and within a few years, many institutions have been projected to supply this deficiency in our systems of Education.

To meet this demand, the Corporation of Yale College, established in 1846, two professorships, one of Agricultural Chemistry, the other, of Chemistry applied to the Arts, to the first of which, John Pitkin Norton, to the latter, Benjamin Silliman, Jr., were appointed.

At a meeting of the Corporation, in August, 1847, a committee, appointed in August of the previous year, "to consider the expediency of arranging under a distinct department of the University, those courses of instruction which are, or may be given, to others than members of the undergraduate classes, and which are not included in the departments of Theology, Law, and Medicine, and that if in their opinion such a department is expedient, they report such arrangements and regulations as may be requisite for the full organization of the department,"—reported as follows:

That in their judgment it is expedient to form such a department, and that for several reasons. Some of these reasons are:

1. That there is a demand on the part of our graduates and others, for instruction in particular lines beyond what is wanted, or can be given in the college course.

2. We have several endowed scholarships for graduates, and are likely to have more; and the advantages arising from these endowments, will be greatly increased by having instructions provided for the scholars upon them, and not leaving them to themselves.

3. From time to time new branches of study are called for by the public; which if introduced into our undergraduate course, would greatly crowd it and interfere with its object as a course of training for the mind.

4. It is believed that students resident here for the purpose of pursuing a specific branch will be industrious, and will have a good effect in promoting the spirit of study among the undergraduates.

5. We have at present the materials of such a department here on the ground. It is believed by your committee, that some system introduced into them, will greatly add to their usefulness.

Your committee being also charged with the duty of reporting *regulations* for the organization of said department, should it be judged expedient to form one, beg leave to report the following:

1. There shall be a fourth department of instruction for other than undergraduate students, who are not in the departments of Theology, Medicine, and Law, to be called the 'Department of Philosophy and the Arts.' The department is intended to embrace Philosophy, Literature, History, the moral sciences other

than Law and Theology, the natural sciences excepting Medicine, and their application to the Arts.

2. Instruction in this department may be given by professors not belonging to the others, by professors in the Academical departments, and by such others as the President and Fellows may approve. But no second course of lectures on the same branch may be given, without the consent of the previous lecturer.

3. All graduates of this or other colleges, and all other young men of fair moral character, may be allowed to pursue such studies included in this department, as they may desire. But dismissed students of this or other colleges, and undergraduate students, without express leave of the Academical faculty, shall not enjoy the privileges of this department.

4. The instructors in this department may make such arrangements as it respects remuneration for their instructions, as they may think proper.

5. The faculty of the department shall consist of the president, and such professors as are actually engaged in the instruction of the department; and regulations passed by the faculty, and approved by the Corporation, may be the regulations of the department.

In 1851, the Corporation established the Degree of Bachelor of Philosophy in this department, to be conferred by the President and Fellows, under the following rules :

1. Students in this department, of the age of 21 years, who have resided at the college two years, and have pursued their studies for nine months in each year, may receive, on examination, the degree of *Bachelor of Philosophy.*

2. The examination shall embrace, at least, three branches of study, and a certificate of the examiners must be produced to the effect, that the examination in each branch has been satisfactory.

3. This examination in the case of students in the physical sciences, shall embrace two departments of physical or mathematical science, and either the French or German language.

Under this action of the Corporation, the Yale Scientific School was organized; and lectures and instruction by Professors connected with other departments of the University, were provided for in studies not included in the courses of Theology, Law, and Medicine.

The following is the Programme of the Lectures and Instructions in the department of Philosophy, for 1856.

Professor GIBBS, on General Philology.
Professor OLMSTED, on Natural Philosophy and Astronomy, the Academical courses of Lectures. Also if desired, private lessons in experimental physics and mathematical astronomy.
Professor NOAH PORTER, on Psychology, Logic, and the History of Philosophy.
Professor THACHER. Lucretius and Latin Composition; instruction twice a week.
Professor HADLEY, Pindar and Theocritus; instruction twice a week.
Professor WHITNEY, Sanskrit from Bopp's Grammar and Nalus, or such other text books as may be agreed upon. Also the rudiments of the Ancient and Modern Persian, and of the Egyptian languages.

The branches of Chemistry, Natural Science and Engineering are embraced under the title of the YALE SCIENTIFIC SCHOOL.

The division of the school, embracing Chemistry and Natural Science, is under the immediate supervision of Professors James D. Dana, Benjamin Silliman, Jr., and John A. Porter, with Mr. Samuel W. Johnson, First Assistant, and Professor Charles H. Porter, Second Assistant.

The students in Chemistry engage in a systematic course of experiment in Analytical Chemistry, in which they are superintended by the Instructors. The following are among the particular applications it includes :—The analysis of grains, soils, minerals, the determination of the commercial value of drugs and chemicals, and experiments in Medical Chemistry. Previous study of Chemistry is not essential to admission.

The Lectures for 1856, are as follows :

FIRST TERM, *General Chemistry*—Professor SILLIMAN, Jr.
SECOND TERM, *Mineralogy and Geology*—Professor DANA.
Chemistry Applied to the Arts—Professor SILLIMAN, Jr.
Agricultural Chemistry—Professor JOHN A. PORTER.
THIRD TERM, *Chemistry of Building Materials*—Professor SILLIMAN, Jr.
Chemical Philosophy—Professor JOHN A. PORTER.

The whole course occupies two years.

The division of the school, embracing Engineering, is under the supervision of Professor William A. Norton, assisted by Alonzo T. Mosman, B. Ph. The course of instruction embraces the following studies and exercises.

Surveying, in all its branches, with the adjustment and use of instruments, and operations in the field.

Drawing.—topographical, geometrical, mechanical, architectural; with shading and tinting.

Descriptive Geometry.—Shades and Shadows—Linear Perspective—Isometrical Projection; pursued in connection with systematic exercises in geometrical drawing.

Applications of Descriptive Geometry to Masonry and Stone-cutting, in the construction of Arches, &c , and to Civil and Mechanical Engineering, generally.

The Principles of Architecture.

Analytical Geometry, and Differential and Integral Calculus.

Mechanics, including Hydraulics and Pneumatics : Application of Mechanics to Machinery and Engineering.

The Science of Construction in its various departments; with a discussion of the nature, strength, and mode of preparation of building materials.

Engineering field-work; or the location of roads, surveys for excavations and embankments, &c. Use of Astronomical instruments for the determination of time, latitude and longitude, &c.

The lectures of Professor SILLIMAN, Jr., during the third term, on the Chemistry of Building Materials, are open to the students; and also the lectures of Professor DANA, on Mineralogy and Geology, those of Professor SILLIMAN, Jr., on General Chemistry, and those of Professor OLMSTED, on Natural Philosophy, Astronomy, and Meteorology, in the Academical Department.

The full course occupies two years. Students will be admitted to pursue a full or a partial course, at their option. The preparatory mathematical studies required for admission to the full course, are Arithmetic, Algebra, Geometry, and Trigonometry.

The tuition fee for the full course, for each term, is $30, to be paid in advance. The fee for the course of Surveying alone is $12. The Matriculation fee is $3. There is no charge for incidental expenses.

Students in this School have access to the College Library, and to the mineralogical and geological cabinets.

The Degree of Bachelor of Philosophy will be conferred by the President and Fellows, upon students in the Department of Philosophy and the Arts, after being connected with the Department for two years, and passing a satisfactory examination in three branches of study.

In the case of students connected with the divisions of Chemistry or Engineering, the two departments of science on which this examination for a degree is held, must both be pursued in the same division of the school.

Although the school has continued on, and has been behind none in the country, in the number and character of its students, it has been unable, from its poverty, to fulfill its aim. It has no adequate building, having only the use of a small dwelling house, which is soon to be removed. It has no collections of models or specimens in any department; it has no income for Professors' salaries beyond three hundred dollars a year; it has not the means even of meeting its current expenses, and paying the requisite assistants. Where a European school of similar character has its endowments of hundreds of thousands the Yale Scientific School has but five thousand dollars.

An appeal has just been make by the Faculty of the Yale Scientific School, to the public for funds, to enable them to meet the immediate necessities of this department of the College, and to give to it an expansion and efficiency corresponding to the demands of the times. According to this appeal, the immediate necessities of the school are:

"1. A building which shall accommodate the students of Analytical and Agricultural Chemistry, the Engineering Department, and the Mining and Metallurgical Department.

2, Collections of Models, Apparatus, and specimens to illustrate the subjects of Engineering, Agriculture, Mining, and Metallurgy; for example, in Engineering, models of Bridges, Railroads, Machinery, and collections of apparatus, and of specimens of building materials, etc., in Agriculture, collections of Agricultural Implements, and Products, grains, woods, soils, etc.

3. A fund for the Professorship of Agricultural Chemistry.

4. A fund for the Professorship of Applied Chemistry.

5. A fund for the Professorship of Metallurgy.

6. A farm for practical farming, and for experiments in Scientific Agriculture, etc., and connected therewith, Instruction in Farming in all its branches including the Rearing of Stock, Dairy Farming, etc., Agricultural Botany and Zoölogy, the diseases of Plants and Animals, Forestry, etc.

7. A fund for the general necessities of the Chemical Laboratory as regards Assistants, Apparatus, Materials, etc.

Beyond this, the school needs the means of expansion, by adding to its number of Professorships as may be required; as for example, Professorships of Architecture and Drawing in the Engineering section, of Mining, of Botany, etc.

It may also be added, that a Museum of Zoölogy and Botany, is essential to carry out fully the purposes of the school; and for this end, a building for collections would be required and a fund for a Curator, and the incidental expenses.

We thus lay the case before the friends of progress throughout the country. We believe that the vicinity of a college, distinguished for the thorough scholarship of its graduates is especially favorable for the highest success of such a school. There are extensive libraries at hand which are available to its students. There is also the largest collection of minerals in the country, and a well supplied cabinet in Geology. There is also a large corps of Professors in the college, whose lectures will be accessible. Moreover, the number of students gathered here from every section of the country, will spread widely a knowledge of the school, while at the same time, many will avail themselves of the opportunities thus afforded for completing their education. Thus the institution instead of gathering in only those who have had little education elsewhere, and taking, consequently, an inferior position, will have a foundation of scholars, and rise to a high standard of learning.

In view of the fugitive nature of private property in this country, and the certainty that in a generation or so it will be distributed and merged again in the common mass, it is plain that the permanent disposition of wealth is in no way more effectually secured than by its bestowment on institutions of education or benevolence. Thus applied, it will benefit posterity, and remain a monument to the enlightened liberality of the donor.

During its whole existence, Yale College has shown itself a safe and prudent trustee of all funds committed to its keeping; and no better guarantee can be desired than its history furnishes for the faithful appropriation of all funds which the future may place at its disposal. The names of Governor Yale, and Bishop Berkeley, of Clark, Munson, Perkins, and many others, are inseparably and honorably connected with her history, and are destined to live forever in grateful remembrance.

We ask of the public spirit and benevolence of the present day, similar benefactions, to give this new department of the institution, an efficiency corresponding to the demands of the times."

XV. THE EDUCATIONAL INTEREST OF THE UNITED STATES.

The following Tables and Summaries have been prepared for the purpose of bringing into a condensed form, the principal elements for estimating the magnitude of the Educational Interest of the United States, to the advancement of which, the American Journal of Education will be devoted.

I. The extent of Territory over which the population of the United States is spread; together with the area of the other American States.

II. The Population of the several states, at decennial periods, with the Juvenile Population of each state, according to the census of 1850.

III. The number of Colleges, Academies, and Public Schools in each state, together with the number of students and instructors, and the annual income from all sources, of each class of institution, in 1850.

IV. The number of students returned, as belonging to the different educational institutions; and also the number of persons returned by the heads of families, as attending school in 1850, in each state.

V. The number of persons over 20 years of age, returned as *not being able to read and write*, in each state, in 1850.

VI. The number of Newspapers, and their circulation, and Libraries and volumes in each state in 1850.

VII. The amount of Funds set apart for Schools and Colleges, and other educational purposes in each state, together with a summary of the number and condition of Colleges, Professional or Special Schools, Common or Public Schools, Normal Schools, Reform Schools, and Institutions for the Deaf-Mutes, Blind, and Idiots in each state, for, or near the year 1854–5.

VIII. The statistics of Crime, Poverty, Insanity, and Idiocy.

IX. The number of persons engaged in agricultural and manufacturing pursuits, with the capital invested, and value of the productions in each department, in reference to the establishment of Special Scientific Schools for each class.

X. The population of the principal cities and towns in each state, in reference to the peculiar educational wants of such communities.

XI. Population and Territory of the several European States, with a summary of their Educational statistics for the purposes of comparison.

TABLES

EXHIBITING THE POPULATION, TERRITORIAL EXTENT, AND EDUCATIONAL STATISTICS OF AMERICA, AND PARTICULARLY OF THE UNITED STATES.

TABLE I.—POPULATION AND AREA OF THE AMERICAN STATES.

NORTH AND CENTRAL AMERICA.		
States, etc.	Ex. in sq. m.	Pop. near 1850.
Greenland, etc.	380.000	10.000
Arctic L'ds & Is.	600.000	
Russian America	481.276	78.000
British America,	2.878.338	2.568.015
Hudson Bay Ter	2.436.000	80.463
Canada,	357.822	1.842.265
New Brunswick,	27.704	193.800
Nova Scotia,	18.746	276.117
Prince Edw's Is.	2.134	62.678
Newfoundland,	35.913	101.600
Bermuda Island,	19	11.092
Fr. Is.; Miquelon	118	1.338
U. States of Am.	2.936.116	23.191.876
Mexico,	822.916	7.661.520
British Honduras	19.200	10.710
Central America	200.000	1.996.000
Guatemala,	28.000	971.000
Honduras,	72.000	308.000
Nicaragua,	48.000	247.000
Sansalvador,	13.000	363.000
Costa Rica,	16.000	101.000
Mosquito,	23.000	6.000

WEST INDIAN ISLANDS.			
States, etc.		Ex. in sq. m.	Pop. near 1850
Hayti,	St. Dom.	10.081	572.000
Dominica,	"	17.609	136.500
Cuba,	Spanish.	47.278	1.009.060
Porto Rico,	"	3.865	447.914
Bahamas,	British.	5.094	27.519
Turks Island,	"	430	4.428
Jamaca,	"	6.250	377.433
Caymans,	"	260	1.760
Trinidad,	"	2.020	68.645
Tobago,	"	144	13.208
Grenada,	"	155	32.671
St. Vincent,	"	132	30.128
Barbadoes,	"	166	135.930
St. Lucia,	"	296	24.516
Dominica,	"	274	22.061
Montserrat,	"	47	7.653
Antigua,	"	108	37.757
St.Christoph'r	"	68	23.177
Barbuda,	"	72	1.707
Nevis,	"	21	9.601
Anguilla,	"	34	3.052
Virgin Islands	"	92	6.689
Guadaloupe, and depend.	French. "	631	154.975
Martinique,	"	382	121.478
Curacoa, etc.	Dutch.	244	22.063
St. Eustatius,	"	97	1.932
St. Martin,etc.	"	28	4.502
St. Cruz, etc.	Danish.	127	39.623
St. Bartholomew,	Swedish.	25	9.000

SOUTH AMERICA.		
States, etc.	Ex. in sq. m.	Pop. near 1850
New Grenada,	521.948	2.343.054
Panama,	27.346	138.108
Ecuador,	287.638	665.000
Venezuela,	426.712	1.149.336
Guiana, British.	96.000	127.695
" Dutch.	59.765	61.080
" French.	27.560	22.010
Brazil,	2.973.400	6.065.000
Peru,	498.726	2.115.493
Bolivia,	473.298	1.447.000
Chili (and West Patagonia,)	249.952	1.133.862
Argentine Rep.	786.000	764.000
Paraguay,	72.106	300.000
Uruguay,	73.538	120.000
Patagonia (East of Andes,)	210.000	300
Falkland Island,	6 296	560

RECAPITULATION.

	Territory.	Population.
N. & C. Am.	8.500.000	40.000.000
West Indi'n Is.	150.000	4.000.000
South Am.	6.700.000	18.000.000
	15.350.000	62.000.000

TABLE II. POPULATION OF THE UNITED STATES

STATES AND TERRITORIES.	Population in 1701.	CENSUS OF 1790.				CENSUS OF 1800.				CENSUS OF 1810.				CENSUS OF 1820.				
	Whites.	Whites.	Free colored.	Slaves.	Total.	Whites.	Free colored.	Slaves.	Total.	Whites.	Free colored.	Slaves.	Total.	Whites.	Free colored.	Slaves.	All other persons*	Total.
Maine, ...	......	96,002	538	......	96,540	150,901	818	......	151,719	227,736	969	......	228,705	297,340	929	......	66	298,335
New Hampshire,	10,000	141,111	630	158	141,899	182,898	856	8	183,762	213,390	970	......	214,360	243,236	786	......	139	244,161
Massachusetts,..	70,000	373,254	5,463	......	378,717	416,793	6,452	......	423,245	465,303	6,737	......	472,040	516,419	6,740	......	128	523,287
Rhode Island, ..	10,000	64,689	3,469	952	69,110	65,437	3,304	381	69,122	73,314	3,609	108	77,031	79,413	3,554	48	44	83,059
Connecticut,....	30,000	232,581	2,801	2,759	238,141	214,721	5,330	951	251,002	255,279	6,453	310	262,042	267,161	7,844	97	100	275,202
Vermont,.......	......	85,144	255	17	85,416	153,908	557	......	154,465	216,963	750	......	217,713	234,846	903	......	15	235,764
New York,.....	30,000	314,142	4,654	21,324	340,120	556,039	10,374	20,343	586,756	918,699	25,333	15,017	959,049	1,332,744	29,279	10,088	701	1,372,812
New Jersey,....	15,000	169,954	2,762	11,423	184,139	195,125	4,402	12,422	211,949	226,861	7,843	10,851	245,555	257,409	12,460	7,557	149	277,575
Pennsylvania, ..	20,000	424,099	6,537	3,737	434,373	586,094	14,561	1,706	602,361	786,804	22,492	795	810,091	1,017,094	30,202	211	1,951	1,049,458
Delaware,......	......	46,310	3,899	8,887	59,096	49,852	8,268	6,153	64,273	55,361	13,136	4,177	72,674	55,282	12,958	4,509	......	72,749
Maryland,......	25,000	208,649	8,643	103,036	319,728	216,326	19,587	105,635	341,548	235,117	33,927	111,502	380,546	260,223	39,730	107,397	......	407,350
Virginia, ...	40,000	442,115	12,766	293,427	748.308	514,280	20,124	345,796	880,200	551,534	30,570	392,518	974,622	603,087	36,889	425,153	250	1,065,379
North Carolina,.	5,000	288,204	4,975	100,572	393,751	337,764	7,043	133,296	478,103	376,410	10,266	168,824	555,500	419,200	14,612	205,017	......	638,829
South Carolina,.	7,000	140,178	1,801	107,094	249,073	196,255	3,185	146,151	345,591	214,196	4,554	186,365	415,115	237,440	6,826	258,475	......	502,741
Georgia,........	......	52,886	398	29,264	82,548	101,678	1,019	59,404	162,101	145,414	1,801	105,218	252,433	189,566	1,763	149,654	4	340,987
Kentucky,......	......	61,133	114	11,830	73,077	179,871	741	40,343	220,955	324,237	1,713	80,561	406,511	434,644	2,759	126,732	182	564,317
Tennessee,......	......	32,013	361	3,417	35,791	91,709	309	13,584	105,602	215,875	1,317	44,535	261,727	339,927	2,727	80,107	52	422,813
Ohio,...........	......	......	......	......	......	45,028	337	......	45,365	228,861	1,899	......	230,760	576,572	4,723	......	139	581,434
Indiana,........	......	......	......	......	......	4,577	163	135	4,875	23,890	393	237	24,520	145,758	1,230	190	......	147,178
Mississippi, ...	......	......	......	......	......	5,179	182	3.489	8,850	23,024	240	17,088	40,352	42,176	458	32,814	......	75,448
Dis. of Columbia,	......	......	......	......	......	10,066	783	3,244	14,093	16,079	2,549	5,395	24,023	22,614	4,048	6,377	......	33,039
Illinois,........	......	......	......	......	......	......	......	......	......	11,501	613	168	12,282	53,788	457	917	49	55,211
Michigan,......	......	......	......	......	......	......	......	......	......	4,618	120	24	4,762	8,591	174	......	131	8,896
Louisiana, ...	......	......	......	......	......	......	......	......	......	34,311	7,585	34,660	76,556	73,383	10,476	69,064	484	153,407
Missouri,.......	......	......	......	......	......	......	......	......	......	17,227	607	3,011	20,845	55,988	347	10,222	29	66,586
Alabama, ...	......	......	......	......	......	......	......	......	......	......	......	......	......	85,451	571	41,879	......	127,901
Arkansas,......	......	......	......	......	......	......	......	......	......	......	......	......	......	12,579	59	1,617	18	14,273
Florida, ...	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Wisconsin,.....	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......	......
Aggregate,.....	262,000	3,172,464	59,466	697,897	3,929,827	4,304,489	108,395	893,041	5,305,925	5,862,004	186,446	1,191,364	7,239,214	7,861,937	233,524	1,538,038	4,632	9,638113

* All other persons except Indians not taxed.

POPULATION OF THE UNITED STATES.—Continued.

STATES AND TERRITORIES.	CENSUS OF 1830.				CENSUS OF 1840.				CENSUS OF 1850.							
	Whites.	Free colored.	Slaves.	Total.	Whites.	Free colored.	Slaves.	Total.	Whites.	Free colored.	Slaves.	Total.	White, 5 & under 10.	Ten and under 15.	Fifteen & under 20.	Area in sq. miles.
Maine, ...	398,263	1,190	2	399,455	500,438	1,355	....	501,793	581,813	1,356	....	583,169	74,295	71,596	66,891	31,766
New Hampshire, ..	268,721	604	3	269,328	284,036	537	1	284,574	317,456	520	....	317,976	34,212	34,267	35,741	9,280
Massachusetts, ...	603,359	7,048	1	610,408	729,030	8,669	....	737,699	985,450	9,064	....	994,514	101,845	97,163	104,912	7,800
Rhode Island, ...	93,621	3,561	17	97,199	105,587	3,238	5	108,830	143,875	3,670	....	147,545	15,200	14,743	15,000	1,306
Connecticut, ...	289,603	8,047	25	297,675	301,856	8,105	17	309,978	363,099	7,693	....	370,792	38,344	37,907	38,013	4,674
Vermont, ...	279,771	881	....	280,652	291,218	730	....	291,948	313,402	718	....	314,120	38,077	36,094	34,258	10,212
New York, ...	1,873,663	44,870	75	1,918,608	2,378,890	50,027	4	2,428,921	3,048,325	49,069	....	3,097,394	372,139	337,525	328,743	47,000
New Jersey, ...	300,266	18,303	2,254	320,823	351,588	21,044	674	373,306	465,509	23,810	236	489,555	60,695	55,126	50,060	8,320
Pennsylvania, ...	1,309,900	37,930	403	1,348,233	1,676,115	47,854	64	1,724,033	2,258,160	53,626	....	2,311,786	311,523	271,891	241,256	46,000
Delaware, ...	57,601	15,855	3,292	76,748	58,561	16,919	2,605	78,085	71,169	18,073	2,290	91,532	9,918	8,923	7,768	2,120
Maryland, ...	291,108	52,938	102,994	447,040	318,204	62,078	89,737	470,019	417,943	74,723	90,368	583,034	54,574	49,915	43,228	11,124
Virginia, ...	694,300	47,348	469,757	1,211,405	740,858	49,852	449,087	1,239,797	894,800	54,333	472,528	1,421,661	130,172	117,440	97,653	61,352
North Carolina, ...	472,843	19,543	245,601	737,987	484,870	22,732	245,817	753,419	553,028	27,463	288,548	869,039	80,200	73,299	61,955	50,704
South Carolina, ...	257,863	7,921	315,401	581,185	259,084	8,276	327,038	594,398	274,563	8,960	384,984	668,507	40,577	36,974	30,262	29,385
Georgia, ...	296,806	2,486	217,531	516,823	407,695	2,753	280,944	691,392	521,572	2,931	381,682	906,185	83,760	72,749	58,582	58,000
Kentucky, ...	517,787	4,917	165,213	687,917	590,253	7,317	182,258	779,828	761,413	10,011	210,981	982,405	116,919	101,064	84,916	37,680
Tennessee, ...	535,746	4,555	141,603	681,904	640,627	5,524	183,058	829,210	756,836	6,422	239,459	1,002,717	118,887	106,269	88,964	45,600
Ohio, ...	928,329	9,568	6	937,903	1,502,122	17,342	3	1,519,467	1,955,050	25,279	....	1,980,329	287,682	251,736	218,215	39,964
Indiana, ...	339,399	3,629	3	343,031	678,698	7,165	3	685,866	977,154	11,262	....	988,416	155,932	132,687	110,673	33,809
Mississippi, ...	70,443	519	65,659	136,621	179,074	1,366	195,211	375,651	295,718	930	309,878	606,526	47,899	41,186	32,004	47,156
Dist. of Columbia, .	27,563	6,152	6,119	39,834	30,657	8,361	4,694	43,712	37,941	10,059	3,687	51,687	4,917	4,391	4.049	60
Illinois, ...	155,061	1,637	747	157,445	472,254	3,598	331	476,183	846,034	5,436	....	851,470	129,905	112,860	92,698	55,405
Michigan, ...	31,346	261	32	31,639	211,560	707	....	212,267	395,071	2,583	....	397,654	59,231	49,531	42,454	56,243
Louisiana, ...	89,441	16,710	109,588	215,739	158,457	25,502	168,452	352,411	255,491	17,462	214,809	517,762	33,205	27,960	23,118	41,255
Missouri, ...	114,795	569	25,091	140,455	323,888	1,574	58,240	383,702	592,004	2,618	87,422	682,044	90,962	79,262	64,549	67,380
Alabama, ...	190,406	1,572	117,549	309,527	335,185	2,039	253,532	590,756	426,514	2,265	342,844	771,623	67,690	59,204	49,763	50,722
Arkansas, ...	25,671	141	4,576	30,388	77,174	465	19,935	97,574	162,189	608	47,100	209,897	26,388	23,108	18,049	52,198
Florida, ...	18,385	844	15,501	34,730	27,943	817	25,717	54,477	47,203	932	39,310	87,445	7,458	5,889	4,750	59,268
Wisconsin, ...	....	....	....	....	30,749	185	11	30,945	304,756	635	....	305,391	42,197	33,946	28,739	53,924
Iowa, ...	....	....	....	....	....	....	....	....	191,881	333	....	192,214	30,959	25,309	20,095	50,914
Texas, ...	....	....	....	....	....	....	....	....	154,034	397	58,161	212,592	23,624	19,802	15,909	237,504
California, ...	....	....	....	....	....	....	....	....	91,635	962	....	92,597	2,091	1,947	5,446	155,980
Minnesota Terr., ..	....	....	....	....	....	....	....	....	6,038	39	....	6,077	719	562	456	166,025
New Mexico Terr.,	....	....	....	....	....	....	....	....	61,525	22	....	61,547	8,727	7,027	7,020	207,007
Oregon Territory, ..	....	....	....	....	....	....	....	....	13,087	207	....	13,294	1,841	1,409	1,202	185,030
Utah Territory, ...	....	....	....	....	....	....	....	....	11,330	24	26	11,380	1,364	1,368	1,325	269,170
Aggregate, ...	10,537,378	319,599	2,009,043	12,866,020	14,195,695	386,303	2,487,455	17,069,453	19,553,068	434,495	3,204,313	23,191,876	2,704,128	2,402,129	2,128,716	2,936,166

TABLE III.—EDUCATIONAL STATISTICS OF THE UNITED STATES IN 1850.

STATES AND TERRITORIES.	Colleges.					Academies.					Public Schools.					White Persons.			
				Annual Income.					Annual Income.					Annual Income.					
	Number.	Teachers.	Pupils.	Returned.	Estimated.	Number.	Teachers.	Pupils.	Returned.	Estimated.	Number.	Teachers.	Pupils.	Returned.	Estimated.	Returned as in Colleges, Academies, and Public Schools.	Attendi'g School as returned by Families.	Persons over 20 years who cannot read or write.	Number of native born, who could not read or write.
Alabama	5	55	567	$11,255	$48,530	166	380	8,290	$161,165	$224,279	1,152	1,195	28,380	$315,602	$390,989	37,237	62,778	33,757	33,853
Arkansas	3	14	150	3,100	3,100	90	126	2,407	27,937	34,308	353	355	8,493	43,763	68,411	11,050	23,350	16,819	16.908
California	....	......	......	....	....	6	5	170	14,270	20,392	2	2	49	3,600	14,700	219	992	5,118	2,318
Columbia, Dist. of	2	36	218	24,000	21,000	47	126	2,333	84,040	84,040	22	34	2,169	14,232	14,232	4,720	6,103	1,457	4,349
Connecticut	4	56	738	53,639	53,639	202	329	6,996	145.967	152,120	1,656	1,787	71,269	231.220	231,220	79,003	82,433	4,739	1,293
Delaware	2	16	144	17,200	17,200	65	94	2,011	47,832	53,498	194	214	8,970	43,861	43,861	11.125	14,216	4,536	9,777
Florida	....	......	......	....	....	34	49	1,251	13,089	22,742	69	73	1,878	22,386	31,777	3,129	4,746	3,859	3,834
Georgia	13	84	1,535	105,430	105,430	219	318	9,059	108,983	184,849	1,251	1,265	32,705	182,231	190,235	43,299	77,015	41,290	41,261
Illinois	6	35	442	13,300	15,389	83	160	4,244	40,488	47,678	4,052	4,248	125,725	319,712	356,416	130,411	181,969	40.054	35,336
Indiana	11	61	1,069	43,350	43,350	131	233	6,185	63,520	73,219	4,822	4,860	161,500	316,955	329,095	168,754	220,034	70,540	69,445
Iowa	2	4	100	2,000	2,000	33	46	1,111	7,980	11,180	740	828	29.556	51,492	52,620	30,767	35,456	8,120	7,076
Kentucky	15	100	1,773	131,461	131,461	330	600	12,712	252,617	306,507	2,234	2,306	71,429	211,852	215,068	85,914	130,917	66.687	67,359
Louisiana	6	41	629	85,750	85,750	143	354	5,328	193,077	283,003	664	822	25,046	349,679	362,412	31,003	32.838	21,221	18,339
Maine	3	21	282	14,000	17,784	131	232	6,648	51,187	64,966	4,042	5,540	192,815	315,436	318,597	199,745	185,941	6,147	2,134
Maryland	13	98	1,127	113,714	122,403	223	503	10,787	232,341	239,083	898	986	33,111	218,836	221,817	45,025	60,447	20,815	38,426
Massachusetts	6	85	1,043	107,901	121,929	403	521	13.436	310,177	354,521	3,679	4,443	176,475	1,006,795	1,010.346	190.924	220.781	27,539	1,861
Michigan	3	22	308	14,000	14,000	37	71	1,619	24.917	31,953	2,714	3,231	110,455	167,806	168,764	112,382	105,754	7,912	5,272
Mississippi	11	45	862	42,400	47,652	171	297	6,628	73,717	144,732	782	826	18,746	254,159	267,821	26,236	48,803	13,405	13,447
Missouri	9	65	1,009	79,528	88,277	204	368	8,829	143,171	183,403	1,570	1,620	51,754	160.770	168,961	61,592	95,245	36,281	34,917
New Hampshire	1	18	273	11,000	11,000	107	183	5,321	43,202	52,591	2,381	3,013	75,643	166,944	167,938	81,237	88,148	2,957	945
New Jersey	4	49	470	79,700	79,700	225	453	9,844	227,588	300,242	1,473	1,574	77,930	216,672	220,340	88,244	89,775	14,248	12,787
New York	18	174	2,673	148,258	217,267	887	3,136	49,328	810,332	1,015,249	11,580	13,965	675,221	1,472,657	1,486,423	727,222	687,874	91,293	30,670
North Carolina	5	29	513	40,700	40,700	272	403	7,822	187,648	222,695	2,657	2.730	104,095	158,564	158,564	112,430	100,591	73,566	80,083
Ohio	26	180	2,621	125,792	145,292	206	474	15,052	149,392	201,077	11,661	12,886	484,153	743,074	751,576	502,826	512,278	61.030	56,958
Pennsylvania	22	134	3,520	286,805	318,070	524	914	23,751	467,843	570,501	9,061	10,024	413,706	1,348,249	1,362,949	440,977	498,111	66,928	51,283
Rhode Island	1	12	283	23,000	23,000	46	75	1,691	32,748	37,423	416	518	23,130	100,481	100,481	25,014	28,359	3,340	1,248
South Carolina	8	43	720	101,790	104,790	202	333	7,467	205,489	205,489	724	739	17.838	200,600	200,600	26,025	40,293	15,684	16,460
Tennessee	18	83	1,705	65,307	67,689	264	404	9,928	155,902	175,926	2,680	2,819	104,117	198,518	200,253	115,750	146,130	77,522	78,114
Texas	2	7	165	1,000	4,125	97	137	3,389	39,384	79,732	349	360	7,946	44,088	94,554	11,500	19,369	10.525	8,095
Vermont	5	30	464	21,558	21,558	118	257	6,864	48,935	56,159	2,731	4,173	93,457	176,111	179.181	100,785	92,152	6,189	616
Virginia	12	73	1,343	159,790	162,574	317	547	9.068	234,372	351,007	2,930	2,997	67,353	314,625	341,279	77,764	109,711	77,005	87,383
Wisconsin	2	8	75	4,700	4,700	58	86	2,723	18,796	19,899	1,423	1,529	58,817	113,133	113,874	61,615	56,354	6,361	1,551
Territories. Minnesota	....	......	......	....	....	1	1	12	140	....	......	......	....	....	....	12	207	649	259
N. Mexico	....	......	......	....	....	1	1	40	....	....	......	......	....	....	....	40	466	25,085	24,429
Oregon	....	......	......	....	....	29	44	842	20,888	24,495	3	4	80	3,927	3,927	922	1,875	157	99
Utah	1	......	......	....	....	13	......	....	2,050	2,221	13	......	....	11,512	11,512	....	2,035	153	121
Total	239	1,678	27,821	1,964,428	2,142,359	6,085	12,260	263,096	4,644,214	5,831,179	80,978	91,966	3,354,011	9,529,542	9,850,793	3,644,928	4,063,046	962,898	858,306

TABLE IV.—PUBLIC LIBRARIES IN THE UNITED STATES IN 1850.

STATES.	State libraries.		Social libraries.		College libraries.		Students' libraries.		Libraries of academies and professional schools.		Libraries of scientific and historical societies.		Public school libraries.		Church libraries.		Sunday school libraries.		Totals for States.	
	No.	Volumes.	No.	Volumes.	No.	Volumes.	No.	Volumes.	No.	Volumes.	No.	Volumes.	No.	Volumes.	No.	Volum's.	No.	Volumes.	No.	Volumes.
Maine, ...	1	9,000	2	6,376	2	16,800	6	13,134	2	10,800	1	300	17	452	9	1,692	131	26,988	171	85,266
New Hampshire,	1	4,700	9	13,878	1	6,400	5	16,200	7	10,700	2	2,800	25	2,500	6	2,450	70	20,117	126	79,745
Vermont, ...	1	3.500	...	....	3	13,032	6	8,667	...	....	..	....	13	9,100	3	580	38	10.020	64	44,899
Massachusetts, ..	1	7,400	23	126,269	4	71,693	15	28,735	9	45,450	10	44,572	700	91,539	42	14,757	433	165,476	1,237	595,891
Rhode Island, ..	..	....	5	25,104	1	24,000	2	7.600	...	....	2	3,000	35	19,637	7	1,756	50	23,765	102	104,862
Connecticut,....	1	3,000	3	14,234	3	29,138	7	38,666	3	6,300	1	7,000	1	300	3	625	107	38,445	129	137,708
New York,.....	3	34,099	21	151,894	8	43,376	7	19,319	171	143,465	4	25,253	8,070	1,338,848	6	2,698	137	33,294	8,427	1,792,246
New Jersey, ...	1	5,000	3	4,300	3	18,000	2	7,600	1	9,000	1	825	6	2,180	2	338	35	8,564	54	55,207
Pennsylvania, ..	1	10,000	16	125,385	10	37,875	12	29,356	7	38,300	5	38,478	29	8,131	26	26,452	226	58,671	332	372,042
Delaware,......	1	4,000	1	4,000	1	2,500	2	6,200	...	....	..	....	.....	....	...	......	12	2,700	17	19,400
Maryland,......	1	15,000	9	32,156	6	25,592	4	1,700	3	3,150	1	1,500	22	5,467	5	1,850	84	28,315	135	114,730
Dis. of Columbia.	10	100,200	2	7,000	2	29,500	4	2,800	...	....	2	9,173	.....	....	...	......	.....	....	20	148,673
Virginia, ...	1	14,000	4	3,313	9	45,790	8	10,466	5	12,951	1	1,200	2	1,460	2	330	11	1,975	43	91,485
North Carolina,.	1	3,000	...	....	3	9,401	2	8,846	2	3,000	..	....	.....	....	9	1,647	19	2,352	36	28,246
South Carolina,.	..	....	2	28,500	2	19,000	4	1,900	5	10,264	..	....	1	250	...	......	.....	....	14	59,914
Georgia,........	..	....	1	6,510	5	15,637	4	4,685	2	5,000	1	2,000	11	1 800	...	......	15	1,988	39	37,620
Florida, ...	2	4,000	1	1,337	...	....	...	....	...	....	..	....	1	200	...	......	4	860	8	6,397
Alabama, ...	..	... ...	1	1,454	4	13,000	2	2,623	...	....	..	....	30	1,000	...	......	15	5,775	52	23,852
Mississippi,....	1	5,000	...	....	3	5,189	2	2,411	...	....	..	....	102	3,050	...	......	6	730	114	16,380
Louisiana, ...	1	7,000	1	10,000	4	13,000	...	....	...	....	..	....	.....	....	...	......	.....	....	6	30,000
Texas,..........	1	1,001	...	....	1	300	...	....	...	....	..	....	2	330	...	......	5	1,660	9	3,231
Arkansas,.......	..	....	1	1,000	...	....	...	....	...	....	..	....	.....	....	...	......	2	170	3	1,170
Tennessee,......	1	8,000	...	....	9	20,844	8	9,912	1	3,506	..	.. ...	2	5,100	...	......	18	2,498	39	49,854
Kentucky,......	1	9,000	1	3,500	10	37,150	10	7,190	3	4.000	1	1,500	1	1,100	4	1,200	18	4,617	49	69,257
Ohio,..........	1	12,500	8	21,295	13	35,510	19	20,205	3	12,529	1	1,000	3	1,595	4	975	248	53,910	300	159,519
Michigan,......	1	4,400	2	3,315	4	10,300	...	....	...	....	..	....	374	47,220	...	......	15	3,500	396	68,735
Indiana,........	1	7.000	4	10,700	6	17,300	4	4,800	...	....	..	....	1	200	1	400	85	11,265	102	51,665
Illinois,........	1	4,000	2	2 821	4	8,120	2	625	2	2,000	..	....	16	2,350	...	......	86	12,829	113	32,745
Missouri,.......	1	4,637	2	5,799	5	18,465	5	1,605	1	500	1	300	4	6,200	1	600	66	14,500	86	52,606
Iowa,..........	1	2,500	...	....	...	....	...	....	...	....	..	....	4	160	...	......	24	2,980	29	5,640
Wisconsin,.....	1	4,000	1	1,000	...	....	...	....	...	....	..	....	33	2,163	...	......	28	5,017	63	12,180
Minnesota,.....	1	3,000	1	200	...	....	...	....	...	....	..	....	.....	....	...	......	.....	....	2	3,200
Total, ...	39	288,937	126	611,334	126	586,912	142	254,639	227	320,909	34	138,901	9,505	1,552,332	130	58,350	1,988	542,321	12,317	4,354,465

STATISTICS OF THE NATIONS.

Number of Public Libraries in the different States and Capitals of Christendom in 1848.

COUNTRIES.	Total No. of Libraries.	No. of Vols. of Printed Books.	No. of Vols. of Manuscript.
Great Britain	34	1,771,493	62,149
France	186	4,510,295	119,119
Prussia	53	2,040,450	15,417
Russia	12	852,090	21,604
Austria	49	2,408,000	41,103
Anhalt	2	25,700	—
Baden	5	404,300	3,170
Bavaria	18	1,268,500	30,156
Belgium	14	509,100	20,728
Bremen	2	36,000	—
Brunswick	6	223,000	4,580
Cracow	2	52,000	2,210
Denmark	5	647,000	3,200
Frankfort-on-the-Maine	1	62,000	550
Hamburgh	6	200,367	5,000
Hanover	5	492,000	5,743
Hesse	5	273,200	400
Hesse-Darmstadt	3	282,600	5,268
Hildburghausen	1	12,000	—
Holland	7	228,310	12,000
Lippe-Detmold	1	21,500	100
Lubec	2	52,000	400
Lucca	1	25,000	—
Luxemburg	1	19,600	162
Mecklenburg	3	85,400	—
Mecklenburg-Strelitz	1	50,000	—
Modena	1	90,000	3,000
Naples and Sicily	8	413,000	3,000
Nassau	1	50,000	—
Oldenburg	1	60,000	—
Papal States	16	957,000	33,495
Parma	3	146,000	—
Portugal	7	276,000	7,587
Reuss	1	5,000	—
Rudolstadt	1	46,000	—
Sardinia and Piedmont	11	297,000	4,500
Saxe-Coburg-Gotha	5	247,000	5,000
Saxe Meiningen	1	32,000	—
Saxe Weimer	2	180,000	2,000
Saxony	9	570,500	7,950
Spain	27	711,050	8,262
Sweden and Norway	8	353,000	9,300
Switzerland	13	480,300	12,734
Tuscany	10	401,000	30,000
Waldeck Pyrmont	1	30,000	—
Wurtemberg	6	433,000	5,200

PRINCIPAL LIBRARIES OF EUROPE.	Number of Volumes.
Paris, National Library	824,000
Munich, Royal Library	600,000
Petersburg, Imperial Lib.	446,000
London, Brit. Museum Lib.	435,000
Copenhagen, Royal Library.	412,000
Berlin, Royal Library	410,000
Vienna, Imperial Library	313,000
Dresden, Royal Library	300,000
Madrid, National Library	200,000
Wolfenbuttel, Ducal Lib.	200,000
Stutgard, Royal Library	187,000
Paris, Arsenal Library	180,000
Milan, Brera	175,000
Paris, St. Geneviève	150,000
Darmstadt, Grand Ducal	150,000
Florence, Magliabecchian	150,000
Naples, Royal	150,000
Brussels, Royal	133,500
Rome, Casanate	120,000
Hague, Royal	100,000
Paris, Mazarin	100,000
Rome, Vatican	100,000
Parma, Ducal	100,000
UNIVERSITY LIBRARIES.	
Gottingen, University Lib.	360,000
Breslau, University Library	250,000
Oxford, Bodleian Library	220,000
Tubingen, University Lib.	200,000
Munich, University Library	200,000
Heidelberg, University Lib.	200,000
Cambridge, Public Library.	166,724
Bologna, University Library	150,000
Prague, University Library	130,000
Vienna, University Library	115,000
Leipsic, University Library	112,000
Copenhagen, University Lib.	110,000
Turin, University Library	110,000
Louvain, University Library	105,000
Dublin, Trinity College Lib.	104,239
Upsal, University Library	100,000
Erlangen, University Lib.	100,000
Edinburgh, University Lib.	90,854
Public Libraries in Paris	1,474,000
„ in London	490,500
„ in St. Petersburg	595,900

The number of volumes of printed books in the Libraries of 118 Colleges in the United States, in 1850, was 965,831.

TABLE VI. SCHOOL FUNDS AND INSTITUTIONS OF EDUCATION,

SUPPORTED PARTLY OR WHOLLY BY PUBLIC FUNDS.

The statistics are made up for 1854, as nearly as possible for all the States, although in some those for 1855 were accessible. We have drawn freely, by permission, from the American Almanac for 1856, and Colton's American Statistical Annual for 1854, and from official Reports.

ALABAMA.

Educational Funds. These consist of a *University Fund* borrowed by the State to the amount of $250,000, the annual interest of which, together with an additional sum enough to make up $30,000, is paid over to the Trustees of the State University, at Tuscaloosa. The *Common School Fund* consists of the following sums, according to the Report of the Superintendent of Education, in 1855:

	Principal.	*Interest.*
Sixteenth Section Fund on deposit in the State Treasury, December, 1854,	$ 1,244,793	$74,687
Value less Sixteenth Section Fund—sold in 1853,	97,091	7,767
United States' Deposit Fund,	669,086	53,526
Direct appropriation in 1854,		100,000
Special Taxes,		1,300
Escheated Property,		233
Notes, the interest of which is paid directly to Towns,	300,000	
	$2,300,970	$237,515

The full amount of the Common School Fund managed by the State is not yet realized. Besides the State Common School Fund there are Township School Funds, the amount or income of which are not reported to the State Treasurer. This State has received 902,774 acres of land for Common Schools, and 23,040 acres for a University.

Common School System. In 1854, the Legislature provided for the appointment of a Superintendent of Common Schools, as preliminary to a thorough revision of the system. According to the returns made to him in 1855, there were 145,518 children between the ages of 5 and 18 years, and about 1000 schools in operation.

School for Deaf and Dumb. This institution was established in 1852, at Robinson's Springs, Autauga County, eleven miles north-west of Montgomery. It is free to all deaf-mutes of the State in indigent circumstances between the ages of eight and twenty years. Amount appropriated for its support in 1854 was $5,000.

ARKANSAS.

Educational Funds. There is a *Common School Fund* in each township, arising out of the Sixteenth Section leases of Salt Springs, and the sale of estrays; but the aggregate value of the Fund or its annual income is not known. The *Seminary Fund*, consisting of a grant by Congress of seventeen sections of land, has been distributed among the counties. The State received 886,460 acres of land for Common Schools, and 46,080 acres for a University.

Common School System. The Secretary of State is *ex officio* State Commissioner of Common Schools. His last report is dated 13th November, 1854. The returns to him from the school commissioners are exceedingly imperfect. Only 40 schools are reported in the whole State. The sale of the school lands would make a large fund. The Commissioner says, "The great obstacle in the organization of common schools is not so much a deficiency in the means to sustain them," as it is "the indifference that pervades the public mind on the subject of education."

CALIFORNIA.

Educational Funds. By grants of Congress, the State of California is possessed of over seven millions of acres of public lands inviolably devoted by the Constitution to educational purposes. The funds realized from sales now amount to over $500,000.

Common School System. The Constitution provides for the election of a Superintendent of Public Instruction to hold office for three years. The Legislature has established a Board of Education for the State consisting of the Governor, the Superintendent of Public Instruction, and the Surveyor General; the Governor being the President, and the Superintendent of Public Instruction being the Secretary thereof. Each town, &c., elects three persons as commissioners of schools for the town, and a constable as a common school marshal. Provision is also made for County Superintendents.

The number of public schools in actual operation in 1855 was 221, with 304 teachers, and 25,398 pupils.

Three Colleges have been incorporated, and several academic institutions have been organized in different parts of the State.

CONNECTICUT.

Educational Funds. This State has several funds appropriated to common school purposes. The *School Fund*, derived from the sale of that portion of the territory of Ohio, known as the Western Reserve, because it was reserved by the State, in its deed of cession, dated Sept. 30, 1786, by which it conveyed to the general government for the general benefit of all the people, all its claims to that vast unappropriated domain which was originally included by its charter within the limits of Connecticut. This reservation was sold for $1,200,000, which was constituted a fund, the income of which was appropriated to the support of common schools. By judicious management, this fund has divided among the schools since 1801, over $4,000,000 of interest, paid the expenses of its management, and has now (1855) a capital of $2,049,953, and yields an annual dividend of $144,173. The *United States' Town Deposit Fund*, one-half of the annual income of which is appropriated to common schools, amounts to $763,661, and yields to their support $25.000. *Society and Town School Funds* amount to about $100,000, yielding about $6,000 a year. The aggregate amount of these funds is now (1855) increased by a Town Tax of one per cent., yielding about $60,000, and local District Taxes yielding about $30,000, making the annual resources of the common schools about $255,000.

System of Common Schools. The law provides for the appointment of a Superintendent of Common Schools, who is *ex officio* Principal of the State Normal School. The following statistics are gathered from the report of this officer for 1853, which are fuller than for any subsequent year. Number of towns for year ending March 31, 1852, 148; of school societies, 217; of school districts, 1,642; of children between four and sixteen, 96,382; attending school in winter, 74,100; average attendance 55,100. Winter schools were kept in 1,530 districts. Number of teachers in winter, male, 1,060, female, 730. Summer schools were kept in 1,410 districts. Number of teachers, in summer, male, 670, female, 1,020. There were in the winter 403 private schools of all grades, with 8,100 scholars. Average monthly compensation of teachers in winter, exclusive of board, males, $18.50, females, $8.20; in summer, males, $22, females, $7.50 Of the teachers, 220 had at least 10 years' experience; 430, 5 years'; 500, 3 years'; 570 less than one year's. 45 schools were broken up from the incompetency of the teachers. $73,000 were expended in building and repairing school-houses during the year. The amount of dividends from the school fund for the year was

$143,693.69; which gives $1.35 to every enumerated child. Lecturers are employed to visit the districts, and to lecture upon topics calculated to improve parents, teachers and scholars; and Teachers' Institutes have been held with marked success in the several counties in the State, at which 655 members were in attendance.

State Normal School. This Institution is at New Britain, and has John D. Philbrick, the Superintendent of Schools, for its Principal, and David N. Camp, Associate Principal. It was opened for scholars May 15, 1850, and from that time to March 27, 1855, 867 pupils were connected with it. During the last year, 294 pupils have been in attendance. The number is limited to 220 at any one term; selections to be, one from each school society. Tuition free.

State Reform School, at West Meriden. Dr. Hawley is Superintendent. The buildings of this Institution were so far completed, that it was opened for the reception of pupils March 1, 1854. From that time to April 1 of the same year, 15 boys were received. During the year ending April 1, 1855, 135 were received, and 11 discharged, escaped, or died, leaving in the school April 1, 1855, 139. Of the 150 committed, 54 were for theft, 7 for burglary, 41 for vagrancy, and 35 for stubbornness. 89 were committed during minority; 17 for two years, 11 for three years, 4 for five years, 3 for six years; 25 were born abroad, 125 were natives of the United States. The average age of the boys when committed was nearly 12.33 years. Records are kept, and the standard of each boy is determined by his daily conduct. The school is divided into four grades, and each grade into four classes. The discipline is maintained by promotion, or degrading, by withholding food, confinement, and if necessity requires it, by corporal punishment. The time is allotted, school, 4½ hours; work at some mechanical employment or on the farm, 6 hours; meals and play, 3¼ hours; the rest in sleep. There has already been gathered a library of 700 volumes. The buildings, when completed, are intended to accommodate from 300 to 350 pupils. The farm has 161¾ acres of land. The current expenses of the year for 200 pupils are nearly $17,000.

The Blind. The Legislature provides for the instruction of the indigent blind children of the State, in the New England Institute for the Blind, at South Boston, at an average annual expense of $1,200.

The Deaf and Dumb. The Legislature appropriates a sum to educate its indigent deaf-mute children at the American Asylum for the Deaf and Dumb, at Hartford. The average annual expense is about $2,000.

American Asylum for the Deaf and Dumb, at Hartford. Rev. William W. Turner, A. M., Principal. The number of pupils for the year ending May 12, 1855, was 217; of whom 117 were males, and 100 females. Of these, 28 were supported by friends, 37 by the State of Maine, 18 by New Hampshire, 18 by Vermont, 75 by Massachusetts, 5 by Rhode Island, and 36 by Connecticut. The cost for each pupil, for board, washing, fuel, tuition, and the incidental expenses of the school-room, is $100 per annum. This Institution received a grant of 23,000 acres of land from Congress, out of which, by judicious management, a productive fund of over $221,000 has been realized, the income of which reduces the cost of tuition to pupils from all parts of the country.

DELAWARE.

Educational Funds. The State has a permanent School Fund of $435,505, which yielded in 1854, the sum of $33,829—and which was increased by a tax levied on the several districts of $24,000.

Free Schools. The system provides a free school within reach of every family. The districts are laid off, numbered and incorporated. 236 of them are organized. Each district entitles itself to a portion of the fund by establishing a school, and contributing toward its support not less than $25. But any district may lay a tax on itself of $300; or (by a special vote) may increase it to any sum deemed necessary for school purposes. Towns or populous districts may unite their resources and form schools of higher grades; the only condition is that they shall be *free*. The number of free schools in operation in the State was 236; number of scholars, (in a white population of 71,169,) 10,230; receipts from school fund and contributions, $57,738.95; expended for support of free schools, $49,469.30.

Deaf Mutes and Blind. The State makes provision for the education of its indigent deaf mutes and blind children, at the Philadelphia Institutions, at a cost of $1,500.

FLORIDA.

Educational Funds. By acts of Congress 908,503 acres of land have been appropriated for common schools, and 46,080, for a University. By an act of the Legislature of 1849, the proceeds of the sales of the school lands, or sixteenth section, and five per centum of the net proceeds of other lands granted by Congress for purposes of education, of all escheated property, and all salvages, shall constitute a School Fund for the support of common schools in the State. We have no information as to the present amount of this Fund, or of the Schools.

GEORGIA.

Educational Funds. The State appropriated in 1783, one thousand acres of land to each county, and in 1817 $250,000, for free schools; and in 1792, one thousand pounds were appropriated for the endowment of an academy in each county, which was increased in 1817 by the further grant of $250,000. The former is designated as the free school fund, and the latter the academic fund. The University of Georgia was originally endowed in 1784, by a grant of 40,000 acres of land, not all of which became available. The University has realized about $130,000 out of the grant.

Common Schools. The avails of the free School Fund ($23,000) are paid out to teachers in each county in favor of certain scholars who are reported by the magistrates as proper recipients of it on account of poverty. The number thus aided in 1854 was 20,000.

Deaf and Dumb. An Asylum for deaf mutes is located at Cave Springs, to which the State makes an annual appropriation of $8,000.

Blind. An Institution for the Blind has been recently established.

IOWA.

Educational Funds. Congress has appropriated 905,144 acres of land for common schools, and 46,080 acres for a University. The proceeds of the sale of the former amounted in December, 1854, to nearly $1,000,000, and were loaned at 10 per cent. interest. The sale of University lands amounted to $58,571, and will ultimately reach 200,000.

Common Schools. The Constitution provides for the election of a Superintendent of Public Instruction by the people; constitutes all grants of land by Congress for schools to be a perpetual fund for that purpose, and appropriates all exemptions from military duty, and all fines, to the support of schools and school libraries. The law also provides for three Normal Schools.

For 1854, there were reported 2,353 organized school districts; in which were 111,093 persons between the ages of 5 and 21; 1,520 district schools; 44,115 pupils in schools; 961 male teachers, 772 female; wages per month, males, $19.61, females, $9.39: number of days school taught, 104,981; volumes in libraries, 576; number of school-houses, brick 98, stone 9, frame 897; cost of school-houses, $170,565; amount raised in districts by tax for school-houses, $30,224.07; contingencies, $3,624.51.

Deaf and Dumb. An Asylum was established at Iowa City in 1854; the State appropriates $5,000 a year for its support. There were 20 pupils in 1855.

Blind. An Institution was opened in 1853, which numbered in 1854, 23 pupils. The State contributed $2,000 toward their support.

ILLINOIS.

Educational Funds. The amount of land granted by Congress for common schools is 650,317 acres, and for an University or higher Seminary, 24,040 acres. The Fund, realized out of these grants, was as follows in 1853.

State School Fund,	$951,504,	yielding	$56,888
County Fund,	50,000,	"	5,000
Township Fund,	2,371,592,	"	237,159

The State School Fund is made up of the avails of the public lands other than the 16th section] amounting to $463,490, and the surplus revenue of the United States, amounting to 335,592; the College Fund amounting to $92,682, and the Seminary Fund amounting to $59,738.

Common Schools. In the seventy-nine counties that made returns for 1854, there were 4,125 organized districts. Amount of public money paid for teachers' wages, $145,183.07; amount paid, besides public money, $157,915.01; whole amount expended for schools in these counties, $308,385.52. Number of schools, 4,215; taught by males, 2,492; by females, 1,557; children taught, 136,371; average length of schools is six months; average monthly wages of male teachers $25; of females $12.

Institution for the Deaf and Dumb, Jacksonville. The edifice for this Institution was erected in 1852–53 at an expense of $40,000, sufficiently large to accommodate all the deaf mutes of the State. The number of pupils during the term was 109, of whom 94 were from Illinois. The annual expenses of the Institution are about $19,000.

Institution for the Education of the Blind. This Institution was opened in 1853, at an expense of $40.000. Instruction free to all the blind of the State. Annual expense is $5,000. Number of pupils, 30.

INDIANA.

Educational Funds. Congress has appropriated 650,317 acres of land to common Schools, and 23,040 to a University. According to the report of the Superintendent [W. C. Larrabee] for 1854, the funds at present available for school purposes are of the following species and amounts: congressional township fund, $1,607,819.13; surplus revenue fund, $552,529.92; Saline fund, $61,270.05; bank tax fund, 56,769.04; total, $2,278,588.14. This amount is, or ought to be bearing interest at seven per cent., producing annually $159,501.17. Deducting from this the amount allowed, two and a half per cent., to county auditors and treasurers for services, we have $143,551.06 to be annually distributed to the cities, towns, and townships of the State, in proportion to the number of children in each. The estimated whole number of children in the State, between the ages of 5 and 21 years, is 414,034; thus affording only 35 cents to each child, and taxation is therefore indispensably necessary to accomplish anything in the cause of education.

Unproductive School Funds. The most important part of the common school fund determinable in amount, but unavailable at present for distribution, is that derived from the sinking fund, which was created by the 113th section of the act establishing the State Bank of Indiana. The total amount of school fund from this source will amount in 1857 to $1,560,400.

Prospective School Funds. The principal of these are—county seminary fund, about $100,000; unsold school lands, at least $50,000; and swamp lands, valued at $1,000,000. There are also several incidental sources of School Fund.

The grand total of the entire School Fund may, therefore, be thus stated: productive, $2,278,588; unproductive, $1,560,400; prospective, $1,150,000—total, $4,988,988."

COMMON SCHOOLS. By an act of 1855, a State Board of Education is established consisting of the Governor, Secretary of State, State Treasurer and Auditor, the Attorney General, and the Superintendent of Public Instruction, who meet annually for conference, discussion, and the determination of questions arising under the school law. The Superintendent is elected by the people for two years, and has the general oversight of the schools, and must spend at least one day a year in each county. The Board of Trustees of each township have the general custody and management of the school property and lands, a limited power to lay taxes for building school-houses, and the authority to employ teachers when the inhabitants do not designate them. They also each year enumerate the children in their township between the ages of 5 and 21. The inhabitants of each school-district elect for a year a school director, who takes care of the school-house, provides fuel, &c., and reports to the trustees. There is to be assessed each year the sum of ten cents on each $100 worth of property, and fifty cents on each poll, (except upon the property and polls of negroes and mulattoes, who have none of the benefits of this act,) for the use of common schools; and one quarter of a mill on each dollar and twenty-five cents on each poll (the poll tax to last but one year) for the purchase of township libraries, such libraries to be purchased under the direction of the State Board of Education.

The number of townships in the State is 938; of corporate towns and cities, 95. The number of polls is 171,736. The number of children reported between 5 and 21 years, 445,761; number of teachers reported,—males, 2,432, females 666; in all, 3,098. Teacher's wages per month,—male, $23.01; female, $15.62. Number of schools reported 2,622; average length, in months, 2.54. A State teachers' association was formed during the year. 690 school-libraries of 321 volumes each, were distributed throughout the State. The aggregate cost of these 221,490 volumes was $147,222, or an average of $213 for each library.

ASYLUM FOR THE DEAF AND DUMB, INDIANAPOLIS, 1854. The Constitution provides that "institutions for the instruction of the deaf, dumb and blind, and for the treatment of the insane, shall be supported by law. Houses of Refuge for the reformation of juvenile offenders shall be established by the Assembly, and the county boards may provide farms as an asylum for those who have claims upon the sympathies and aid of society." All the deaf and dumb of the State between the ages of ten and thirty are entitled to an education, without charge for board or tuition. The session is annual, and lasts ten months, from the 15th of September to the 15th July. The course of instruction is for five years. Pupils in attendance November 1, 1854, 139; 89 males, 50 females. The whole number admitted since the opening of the Hospital in 1843 is 313; 199 males, 114 females. Number discharged, 174; 110 males and 64 females. Of 168 the deafness was congenital. Of 20 the parents married within the degrees of consanguinity; 27 of the pupils have married deaf mutes; 5 those who can hear and speak. 299 were from Indiana. The entire receipts during the year were

$32,651.21. The expenses were $32,321.21. Balance, $330.00. The ordinary expenses of the Institution are $20,000.

Institution for the Blind, Indianapolis. The boarding and tuition of pupils who are children of residents in the State are free. General applicants over 21 and under 8 years of age are not admitted. The whole number of pupils during the year was 77. 10 left during the year, leaving in the school November 1, 1854, 67. It is estimated that there are 150 blind persons in the State needing the instruction of the school. The current expenses of the school for the year are about $6,000.

KENTUCKY.

Educational Funds. The school fund amounted in 1854 to $1,400,270.01; consisting of State bonds and bank stocks, besides an annual tax on property amounting to about $78,000.

Common Schools. 103 counties and cities have made reports to the Superintendent for the year 1854. Number of children reported, 207,210; average number at school, 76,429. Money distributed during the year 1854, $146,047. Number of children in the State between the ages of 5 and 16 years, 227,123.

Institution for the Blind, Louisville. This Institution was founded in 1842. It has 38 pupils.

Institution for the Deaf and Dumb, at Danville. This school was founded in 1822, and received a grant of a township of land from Congress. It is under the direction of Centre College. It has 87 pupils.

LOUISIANA.

Educational Funds. The State has received 786,044 acres of land, for common-school purposes, and 46,080 for a higher seminary. The constitution provides that "free public schools shall be established throughout the State; the proceeds of lands granted for the purpose, and of lands escheated to the State, shall be held as a permanent fund, on which six per cent. interest shall be paid by the State for the support of these schools." The yearly sum of $250,000 is appropriated for the support of the free schools of the State, and is derived from the levy of a tax of one mill on the dollar, and from the imposition of a poll-tax of $1 on each white male inhabitant of the State. The School Fund, January 1, 1855, amounted to $461,269.65. There is, besides, the Seminary Fund, which, at the same date, was $151,539.66. But these now are funds of account only, and consist merely of a debt of the State to the fund. The number of school districts in the State, January 1, 1855, was 681; number of schools in operation, an average of eight months in the year, in 38 parishes, 687, and the average tuition of each scholar, per annum, was $9; number of white children in the State, between 6 and 16, 62,682; average attendance for the year, estimated 36,000; number of teachers in the State, about 1,000. The amount apportioned to the several parishes for the year was $250,524.56. The report of the Superintendent of Public Education contains no other statistics than these of any general use. The Governor in his message speaks of the "educational system" as in an unsatisfactory condition, and as "almost a failure."

Deaf and Dumb and Blind Asylum. This Institution is at Baton Rouge, and embraces both a "mute department" and a "blind department." The buildings for the latter were in process of erection at the date of the last report, January 25, 1855. The mute department is in operation. There have been 31 pupils in the Institution during the year, 15 females and 16 males; 29 were natives of Louisiana, and 2 of Kentucky. All the deaf and dumb of the State, between 10 and 30 years of age, and all the blind between the ages of 8 and 25, are entitled to an education, free of charge for board or tuition, in this Institution.

MAINE.

Educational Funds. The permanent School Fund is $125,281.01. The amount apportioned for the year 1854, was $55,860.53. The bank tax for the support of schools is one-half of one per cent. on their capital. The apportionment is made ratably among towns making returns. Towns are obliged by law to raise annually an amount of school money equal to 40 cents for each inhabitant.

Common Schools. By the act of April 17, 1854, provision is made for the appointment of a Superintendent of Common Schools. His duty is "to devote his time to the improvement of common schools and the promotion of the general interests of education in the State." He is to hold annually in each county a teachers' convention, for one week at least, of which he has the charge, and he is to employ suitable instructors and teachers to assist him therein. To defray the expenses of these conventions $2,000 are appropriated annually.

The latest statistics of the common schools are contained in the Report of the Secretary of the Board of Education for 1852, as follows: Number of cities 7, of towns 372, and plantations 841; of districts 4,092, and parts of districts 275. Number of male teachers, 2,767; average monthly wages, $17.83; female teachers, 4,248; average weekly wages, $1.54. Average length of schools, 18 3-10th weeks. Number of schools suspended by incompetency of teachers 1,595. School-houses—number of good houses, 1,595; poor do., 2,171; built during past year, 174, and cost, $67,683.46. Scholars—whole number 237,773; attending summer term—total 133,062, and average, 99,248; attending winter term—total, 154,968, and average 118,746; mean average attendance both summer and winter terms, 108,997; ratio of mean average to whole number of scholars, 0.46. Amount of school money raised by tax per scholar, $1.20; whole amount of school money raised by tax, $284,704.74; minimum school tax required by law, 230,543.20; excess $56,554.44; amount apportioned from State School Fund, $34,701.81; miscellaneous funds, $13,378.19; amount expended for private schools $28,994.42. Ratio of school money raised by tax to valuation of 2 9-10th mills.

State Reform School. This school is at Cape Elizabeth, and is under the Superintendence of Wm. R. Lincoln. The first boy was received November 14, 1853; from that day to Nov. 13, 1854, 117 inmates were received and 4 were discharged. 27 were from Kennebec county; 30 from Cumberland; 28 from Penobscot; 2 from Oxford; 1 each from Hancock and Waldo; 12 from York; 3 each from Washington and Franklin; 8 from Sagadahoc; and 2 from Somerset. 78 were committed for larceny; 3 for breaking and entering with felonious intent; 21 as common runaways; 4 for truancy; 3 for assault, and 5 for malicious mischief; 100 were Americans, and 17 foreigners; average age 13½ years. Each boy is employed six hours of each day at some mechanical, agricultural, or domestic labor. The farm connected with the school contains 160 acres.

MARYLAND.

Educational Funds. The State has a School Fund, arising out of advances made on account of the war of 1812, and repaid by Congress, together with the avails of a tax on the capital of every bank created by the Legislature. This Fund in 1854 amounted to about $160,000. The income is distributed to the several counties, and by the county commissioner is paid over in some cases to primary Schools, and in others to one or more Academies.

Common Schools. There is no uniform system of public schools; each county being left at liberty to adopt its own system, in consequence of which there is the most gross inequality of school privileges, and an entire absence of reliable returns as to the condition of such schools as are established. The public schools of Baltimore are in a good condition. The City raises more money for their support than all the rest of the State for the same object.

The State provides for indigent deaf-mute and blind children in the Institution at Pennsylvania. There is a House of Refuge for young criminals, at Baltimore.

MASSACHUSETTS.

Educational Funds. The School Fund amounted on the 1st of January, 1855, to $1,602,957, yielding an income for distribution among the schools of $47,000. Any town to draw its proportion of this income must raise by tax on the property of the town for the support of the school a sum equal to $1.50 per each person between the ages of 5 and 15.

Public Schools. Every town is obliged by law to maintain a sufficient number of public schools to educate all the children of a proper school age. And towns having over three hundred families, must maintain a public High or Grammar School. The State provides for the support of four Normal Schools for the education of teachers for the district schools, and has established forty-eight scholarships in the Colleges of the State for the education of teachers in the high schools. The supervision of the public school system is entrusted to a Board of Education, which consists of the Governor and Lieutenant Governor, and eight members, one being appointed each year to serve for eight years. The Board appoints a Secretary, who has an assistant, and two agents to visit schools, lecture in the towns, and co-operate with committees and teachers in the improvement of the schools.

The statistics of the public schools, normal schools, and academies for 1854 were as follows: the towns raise by taxation for the support of schools, $1,013,472.26. Aggregate expended for wages, fuel, and superintendence $1,140,132.68. Number of children in the State from 5 to 15 years old, 206,625. Number that attend school under 5 years, 16,093; over 15 years, 21,609. Number of public schools in the State, 4,163. Number of teachers in summer, males 374, females 4,172; in winter, males 1,840, females 2,891. Number of scholars in summer schools, 186,628. Number in winter schools, 199,447. Average attendance in summer, 141,226; in winter, 154,277. Ratio of attendance to whole number of children between 5 and 15, .72. Average length of the schools, 7 months and 16 days. Average wages per month, inclusive of board, paid to male teachers, $37.76. Do. to female teachers, $15.88. There are 66 incorporated academies in the State, with an average of 4,142 pupils, and an aggregate of $85,322.90 paid for tuition; also, 674 unincorporated academies, private schools, &c., with 17,322 scholars, and an estimated aggregate of $244,290.72 paid for tuition. Amount expended on public and private schools, &c., exclusive of cost of repairing and erecting school edifices, $1,384,423.40. There were in 1850 local funds for the support of academies, &c., to the amount of about 350,000, yielding an income of about $20,006. The value of the public school-houses in the State in 1848 was $2,750,000, of which $2,200,000 had been expended since 1838. The four Normal Schools supported by the State, cost annually about $11,000; one is at Westfield, one at Framingham, one at Bridgewater, and one at Salem, for girls—averaging annually, in all, about 260 pupils.

State Reform School for Boys, Westborough. This school was established in 1848, at an expense for land and buildings of $100,000, to which Theodore Lyman gave $50,000. Boys in the school, Dec. 1st, 1853, 385; received since, 389; discharged during the year, 215; remaining, November 30th, 1854, 559. Of those committed, 3 were 6 years old, 9 were 7, 36 were 8, 67 were 9, 128 were 10, 151 were 11, 179 were 12, 193 were 13, 236 were 14, and 263 were 15, 37 were 16, 19 were 17 and over, and the ages of 8 were unknown. 454 were committed for larceny, 566 for stubbornness, 57 as idle and disorderly, 81 for vagrancy, 27 for shopbreaking and stealing, 5 for assault, 13 as runaways, 56 for shopbreaking with intent to steal, 5 as common drunkards, 30 for malicious mischief, and 8 for burglary. 990 were committed during minority, 2 for 10 years, 1 for 9 years, 7 for 8 years, 27 for 5 years, and the remainder for shorter periods. Of the whole number of inmates 1,093 were born in the United States, and 236 in foreign countries. Of the 1,093 born in this country, 758 are of American parentage, and the rest of foreign. All the boys are employed during a portion of the day at some mechanical, agricultural, or domestic labor. They do the washing, ironing, and cooking, and make and mend their own clothes. Each day, 4 hours are devoted to school, 6 to labor, 8½ to sleep, and 5½ to recreation and miscellaneous duties. 180 acres of land were originally purchased, and since that time an adjoining farm has been added. A new wing was added to the building in 1853. The school can accommodate 550 inmates, and is now (1855) full. The expenses of the Institution for the year were $58,171.01; exceeding the means provided, $6,739.50. The estimated expense of keeping each boy per annum is $45.

State Reform School fol Girls, Lancaster. A school for this purpose was established by the Legislature of 1855, in pursuance of the recommendation of the commissioners appointed for that purpose by the preceding Legislature. The government is vested in seven trustees, who are authorized to procure a site, and to erect the necessary buildings, at an expense not exceeding $40,300; that being the amount of the State appropriation ($20,000) and the private subscription ($20,300.) Girls over 7 and under 16 years of age, who have committed any offence, or are beggars or vagrants, may be sent thither, and in all cases they are to be committed until they are 18 years of age, unless sooner discharged or disposed of by being bound as apprentices.

School for Idiotic and Feeble-minded Youth, Boston. This school has been in operation since 1848, under the gratuitous and effective superintendence of Dr. Samuel G. Howe. To the close of 1854, 114 pupils had been admitted, and 41 remained in the Institution at that time. 30 are State beneficiaries. At first the State appropriated $2,500 yearly to support its beneficiaries, and latterly $5,000 a year. The Legislature at its last session appropriated $25,000 to purchase a site and erect a building for this school, upon condition that before July 4th, 1855, the trustees should raise $5,000 for furnishing it with apparatus, &c. This condition has been complied with. From the very able and careful report of the commissioners of the State to ascertain the number and condition of the insane and idiots in the State, prepared by Dr. Jarvis, it appears that there are in the State 1,087 idiots, of whom 640 are supported by friends, and 417 by the State; 1,043 being natives, and 44 foreigners. There has been since 1848 a private establishment for the instruction of this class at Barre, in Worcester Co. It is now under the care of Dr. George Brown, and has some 10 pupils.

Perkins' Institution, and New England Asylum for the Blind, at South Boston. From the Twenty-third Annual Report of the Trustees, there were 111 pupils in 1854. The annual expenses are borne by payments made by the States from which the pupils are sent, viz., $9,000 by Mass.; $2,403 by Maine; $1,119 by Conn.; $640 by Vt.; $450 by N. Hampshire, and $225 by private pupils, and the avails of a Fund of $32,825 belonging to the Institution.

Deaf and Dumb. The State provides for the education of all her indigent deaf and dumb children, at the American Asylum, at Hartford, at an expense of about $10,000 a year.

(*To be continued.*)

XVI. EDUCATIONAL MOVEMENTS AND STATISTICS.

RUSSIA.

UNIVERSITIES. The following particulars are from the last report of the Minister of Public Instruction in Russia.

THE UNIVERSITY OF ST. PETERSBURG includes three faculties,* each divided into two sections, viz., the faculty of history and philology, composed of the sections of universal and oriental literature; the faculty of physics and mathematics, comprising the sections of mathematics and natural sciences; the faculty of law, including the sections of jurisprudence and political economy.

The university had during the year 1853, 70 officers and 383 students. In addition to the latter, 70 foreigners were also in attendance upon the lectures.

The Library of the University† contains 25,322 works in 44,487 volumes, and that of the students contains 1,701 volumes.

THE UNIVERSITY OF MOSCOW contains four faculties; one of history and philology, another of physics and mathematics, the third of law and the fourth of medicine. These four faculties embrace 123 professors and officers and 975 students, in addition to 131 foreigners. The Library of the University contains 68,832 works in 106,096 volumes.

THE UNIVERSITY OF KHARKOFF has four faculties, corresponding to those of Moscow. The number of students in 1853, was 475, beside 18 foreigners; the number of professors and officers was 77. The Library contains 29,541 works in 54,621 volumes.

THE UNIVERSITY OF KASAN, with the same arrangement of its faculties as at Kharkoff, had in 1853, 92 officers and 370 students. The principal Library contains 52,487 volumes, and that of the students, 10,181 volumes.

THE UNIVERSITY OF ST. VLADIMIR, AT KIEFF, is formed also of the four above-named faculties. It had in 1853, 97 professors and officers. There were 606 students in addition to 28 foreigners who were in attendance upon lectures. The Library of the university contains 91,881 volumes.

THE UNIVERSITY OF DORPAT is composed of five faculties, viz., of law, of theology, of history and philology, of physics and mathematics, and of medicine. There were in 1853, 71 professors and other officers, and 634 students. The Library contains 87,496 volumes.

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* The faculty of medicine is not needed in this University, on account of the excellent Medico-Chirurgical Academy which exists in St. Petersburgh, on a separate foundation.

† This Library is quite distinct from the Imperial Public Library of St. Petersburg, one of the largest collections of books in the world, numbering not far from half a million of volumes.

Schools of Special Instruction. The Government of Russia has done as much as any other in Europe, within the last half century, for the establishment and maintenance of schools of special training, where men from every quarter of the empire may be fitted by appropriate courses of instruction, for practical yet scientific pursuits—as the improvement of agriculture, the protection and cultivation of forests, the development of mines and the perfection of manufactures.

"In the first place, the military schools are cared for. In the old and new capitals, of Moscow and St. Petersburg, and in two or three smaller places, immense academies for the training of officers are established and munificently sustained. One such institution in St. Petersburg had, a short time since, more cadets than the whole number of officers in the United States' army; while in the five-and-twenty military schools of the empire, there were, in 1854, more than eight thousand cadets, or three-fourths the number of our regular troops, officers, privates, and musicians included. These schools are for different objects; one trains officers of the guard, another those of the line, and others are for the cavalry, the artillery, and the corps of engineers. In all between eight and nine hundred instructors are employed, and their systems of instruction, pursued through several years, will compare most favorably with those of the military academies in any other country. Next to the schools of preparation for the army, are those of the navy. One of these, the Marine Corps of St. Petersburg, with its ninety officers and nearly six hundred pupils, is in every respect a first-class establishment: and among the other establishments, subordinate to the Ministry of the Marine, ten in number, with nearly four thousand pupils, are schools for training sailors for the merchant service, the customs, and other maritime occupations.

Every one knows how rich are the mines of Russia, and with what success they are worked. It is not so well understood that since the time of Peter the Great, the government has made enormous appropriations to maintain a corps of miners, who shall combine the most thorough scientific training with abundant practical experience. The high school of miners in St. Petersburg, with its thirty-six instructors and two hundred and fifty scholars, is supported by seventy-four lower mining schools in different parts of the empire, to which it furnishes instructors from its graduates, and from which, in turn, it derives well-fitted pupils. The course of instruction in the school at St. Petersburg occupies eight years, and is rendered exceedingly valuable by the attainments of its officers, the extent and completeness of its geological and mineralogical museums, its collection of mining apparatus, and its large models of coal, copper and gold mines.

Russia is not less renowned as an agricultural than as a mining country, and the wisdom of the government is seen in providing as well for the improvement of its forests and fields, as for the skillful working of its beds of ore. A few miles from St. Petersburg, on a fine farm, provided with all the suitable buildings, well stocked with cattle and rich in museums, is the chief agricultural school. Two hundred and eighty students, chosen from all parts of the empire, here receive, at the expense of the Crown, such instruction as will make them most useful in the neighborhood of their own homes, to which they are finally sent back. Their studies continue for five years, although strictly confined to agriculture. For the training of foresters there is a totally different school, where the culture of trees, their preservation and use, is taught as a practical science by nearly forty teachers to two hundred and fifty scholars. Near Moscow is another large agricultural academy, and in not less than eight other places of the empire, are model farms, almost every one of which is attended by more than one hundred pupils. Horticulture and the veterinary art are taught in entirely distinct establishments, their general principles only being inculcated in the institutions just referred to.

But this is not all that Russia is doing to develop by educational appliances its various resources. It is still behindhand in its manufacturing industry. Its high tariff and its splendid establishments supported by the crown for making porcelain, glass, tapestry and other articles of luxury, have not done all that is needed. Technological education has, therefore, been added to its system of special training, and in the Polytechnic Institute of St. Petersburg, under the care of twenty-five instructors, more than two hundred and sixty pupils are fitting themselves by the study of chemistry, mathematics, and the laws of design as applied to the arts, for various elevated industrial pursuits. Special schools of design in both the old and new capitals of the empire, are attended by nearly one thousand scholars.

The construction of roads and bridges is taught in two schools to nearly five hundred pupils. Every form and dialect of the Oriental languages are taught in the Philological Institute by thirty-six teachers, to over two hundred pupils who are training themselves to be interpreters among the various nations which bound the eastern and southern portions of the empire. Even the Post-Office service has three schools located at St. Petersburg, Moscow and Tobolsk, and specially devoted to candidates for its employment.

It is thus that Russia, a new power among the nations of the earth, a nation not composed, like our own, of emigrants from civilized lands and their direct descendants, but of men who are not yet freed from the title of barbarians, is seeking to improve its internal affairs, and to develop wisely its wonderful capacities. The variety of these special schools, manned by such large numbers of instructors, attended by so many thousands of pupils, endowed with rich museums, well filled libraries and admirable apparatus, giving instruction in the latest discoveries of science and in the principles of industrial art most approved in the establishments of every other nation, is fast tending to place Russia in the forward ranks of civilization."—*New York Tribune.*

MILITARY SCHOOLS. The London Times acknowledged not long ago, in an editorial article, that one great cause why the allies had been less successful than they hoped to be in the present war, was their ignorance of the extent and character of the Russian Institutions for military education. The officers trained in such establishments are not surpassed in preparation for the duties of their profession by those of any country.

According to the *Kalender* for 1855, of the St. Petersburg Academy of Sciences, the number of officers and cadets in the military schools of the empire was as follows, upon the 1st of January, 1854.

St. Petersburg Military School District.

	Instructors.	Pupils.
Imperial Page Corps,	50	167
School of Sub-Ensigns of the Guard and Junkers,	35	253
First Cadet Corps,	67	603
Second Cadet Corps,	76	603
Pawloff Cadet Corps,	63	501
Novogorod Cadet Corps,	16	391
Grusinian Cadet Corps,	(was not opened.)	
Finnish Cadet Corps,	20	131
Alexandroff Cadet Corps,	25	361
The Noble Regiment,	102	863
Moscow Military School District.		
First Moscow Cadet Corps,	42	567
Second Moscow Cadet Corps,	44	398
Alexandrine Cadet Corps for Orphans,	29	228

	Instructors.	Pupils.
Orloff Cadet Corps,	22	383
Alexandriff Cadet Corps in Tula,	11	104
Michael Cadet Corps in Woronest,	28	393
Tamboff Cadet Corps,	7	105
Kasan Cadet Corps,	(was not opened.)	
Department for those of under age in the 1st corps,	21	97
Orenburg Cadet Corps,	21	197
Ssibirian Cadet Corps,	16	220
Western Military School District.		
Polozk Cadet Corps,	21	377
Petroff Cadet Corps in Poltawa,	36	411
Alexandroff Cadet Corps in Brest Litowskij,	19	404
Wladimir Cadet Corps in Kieff,	24	254
Chief Engineer's School,	46	126
Michael Artillery School,	38	150
Total,	879	8,269

BELGIUM.

Industrial Schools. The "Journal of Industrial Progress," (Dublin, February and March, 1855,) contains two articles, historical and statistical, on the state of Belgian Industry, and on Apprentices' Workshops (for boys) and Apprentices' Schools (for girls.) The following particulars are taken from that source.

In East and West Flanders, in 1854, there were open 65 *ateliers d'apprentissage* (making plain fancy fabrics in wool, cotton, linen and silk) of which 60 were aided by the government; 64 of these workshops had 2,148 persons in apprenticeship, and had already trained 9,317 persons—total, 11,465. In 53 localities out of the 65, the rate of wages had been increased in consequence of the workshops. In many cases the wages of the trained workmen were double, in some even treble, and in most cases from thirty to fifty per cent. more than that of the untrained workmen before the establishment of the shops.

Of *Ecoles d'apprentissage* for girls, (to be distinguished from the *ateliers* for boys,) there were 740 in Belgium in 1852, attended by about 45,000 pupils, chiefly young girls. 363 of these were supported by private persons, the remainder by authorities in the church or commune. The making of lace, muslin, embroidery, knitting, fringe, gimp, gloves, &c., is encouraged in these schools. Attendance of two hours daily in the classes for two years, is sufficient to enable the pupil to learn to read, write and calculate, and to acquire a knowledge of French as well as Flemish.

GREAT BRITAIN.

Appropriations for Education, Science and Art, in 1855–56. An analysis of the appropriations for Public Education in Great Britain and Ireland, and of that for the Department of Science and Art, for 1855, will suggest some objects worthy of the attention of statesmen and educators on this side of the Atlantic. The annual appropriations by the British Government for these objects, for the year ending 31st March, 1856, amounted to £816,323, or over $4,000,000.

ENGLAND AND WALES.

The grant of £381,921 for Public Education in Great Britain, exclusive of Ireland, is distributed in the following manner.

1.	In aid for	building, enlarging and furnishing School-houses,	£70,000
2.	“	purchase of Books, Maps,	4,000
3.	“	Stipends of Pupil Teachers,	145,000
4.	“	Capitation Grants,	12,000
5.	“	Augmentation of Salaries of Teachers—Principals,	47,000
6.	“	“ “ “ Assistants,	4,500
7.	“	34 Training or Normal Schools,	54,050
8.	“	Retiring Pensions for incapacitated Teachers,	1,000
9.	“	Salaries and other expenses of Committee of Council on Education,	11,431
10.	“	41 Inspectors of Schools—Salaries and Travel,	31,940

The grant of £79,364 to the Board of Trade in aid of its Department of Science and Art, was distributed as follows:

1.	General Management—Salary of Secretary, &c.,	£2,767
2.	Central Institutions—London,	30,000
	Industrial Museum—Scotland,	1,763
	Museum of Irish Industry,	4,707
	Royal Dublin Society,	6,000
	Royal Irish Academy,	300
3.	Aid to Schools by means of Examples, Diagrams, &c.,	4,500
	Salaries to Masters, &c.,	12,000
4.	Normal Lace School, Ireland,	500
5.	Prizes, &c.,	2,400
6.	Inspection—Salaries,	2,100
	Travel, &c.,	2,000
7.	Geological Survey of the Kingdom,	6,100
8.	Meteorological Observations at Sea,	6,100

We shall have occasion to speak of the results of these and other appropriations for Educational purposes in Great Britain, in noticing the published reports of the several bodies entrusted with the expenditure.

University for Legal Education, to meet the demands for a more thorough and systematic education for the Bar.

In 1853, a Parliamentary Commission was appointed to inquire into the arrangements of the Inns of Court and Chancery for promoting the study of the law and jurisprudence. The commissioners were Sir William Wood, Sir John Taylor Coleridge, the Attorney General, the Solicitor General, Sir T. E. Perry, Mr. Lefevre, Mr. Keating, Mr. Greenwood and Mr. Lavie. Their report has just been published. It contains the result of their inquiries into the property of the several Inns of Court—into the method of conducting legal education in the principal States of Europe and America, and as to the improvements which may be made in the English system.

"The commissioners, in concluding their report, recommend that the Inns of Court should be united in a university, but still preserving their independence respectively as distinct societies with respect to their property and internal arrangement, and that such university might not only regulate the examinations, but might likewise confer degrees in law. It is observed that such degrees might be of considerable professional value, that early opportunities of practice are of great value to the barrister in stimulating his industry and in the timely development of his talents. Such opportunities might more frequently arise if the solicitor had any such grounds to justify his selection of a young barrister as might be afforded by degrees or other distinctions granted to students in respect of their examinations; and that country gentlemen, also, who are not desirous of practicing as barristers, might nevertheless be glad to avail themselves of the opportunity of legal study afforded by such an university. The commissioners deem it advisable that there should be established a preliminary examination for admission to the Inns of Court of persons who have not taken a university degree, and that there should be examinations the passing of which should be requisite for the call to the bar, and that the four Inns of Court should be united in one university for the purpose of these examinations and of conferring degrees, and they then propose the following heads of a scheme for that purpose:

1. That a university be constituted with a power of conferring degrees in law, of which the constituent members shall be the chancellor, barristers-at-law, and masters of laws.

2. The chancellor of the university to be elected for life, the electors being all barristers (including serjeants) and masters of laws.

3. That a senate, consisting of thirty-two members, shall be elected in manner following, viz., eight members shall be elected by each Inn of Court, five of them being Benchers of the inn, and elected by the Benchers; and three of them being barristers (including serjeants) of any inn, but elected by the barristers (exclusive of the Benchers) of the inn to which they belong.

4. That one-fourth of the senate shall retire annually, but the retiring members to be re-eligible.

5. That a vice-chancellor shall be elected by the senate from their own body, and upon his ceasing to be a member, a fresh election shall take place. The vice-chancellor shall preside at the meetings of the senate with the privilege of a casting vote. (The details as to convening meetings, a quorum, and the like, will be provided for in any charter or act of incorporation.)

6. That the senate and vice-chancellor shall not receive any emolument, but shall have power to appoint a treasurer, a secretary or registrar, and other proper officers.

7. That the existing arrangements for the payment of the readers of the Inns of Court be continued, and that the senate shall from time to time direct the payment of such fees as they shall think fit by the students toward the expenses of the university, and shall transmit tables of such fees to the Inns of Court. And any further funds that may be requisite shall be provided by the Inns of Court.

8. That the meetings of the senate be in the hall of one of the Inns of Court.

9. That the government of the university be the chancellor and Senate.

10. That there shall be,—

(1.) A preliminary examination of candidates for admission as students at the Inns of Court.

(2.) An examination in law of students desirous of being called to the bar or taking a degree of master in laws. That there shall be two of each of such examinations respectively held every year, the one shortly before Michaelmas Term, and the other shortly before Easter Term.

11. That no person shall be examined for admission as a student at an Inn of Court unless he shall produce his conditional admission by the inn, subject only to his passing such examination.

12. To pass such preliminary examination such persons must possess a competent knowledge of English history and Latin.

13. No person shall be admitted as a student into any Inn of Court unless he shall have passed the preliminary examination, or have obtained the degree of a Bachelor of Arts, or Inceptor or Bachelor in Law at some university within the British dominions.

14. The subjects for the examination of students desirous of being called to the bar or of taking a degree in laws shall be divided into two branches, consisting of the following subjects :

First branch—(*a.*) Constitutional law and legal history. (*b.*) Jurisprudence. (*c.*) The Roman law.

Second branch—(*a.*) Common law. (*b.*) Equity. (*c.*) The law of real property.

15. That no person shall be called to the bar unless he shall receive a certificate from the senate of having passed a satisfactory examination in at least one subject in each of the above branches.

16. That students may present themselves as candidates for honors at the examination in such branches, and, if they shall be deemed by the examiners to have passed a creditable examination in all the subjects of either branch, they shall be entitled to a certificate of honor, in respect of such examination ; and, if they shall have passed a like examination in all the subjects of both branches, they shall be entitled to the degree of master of laws. The senate to make regulations in respect of the classification of the students for honors.

17. That at each examination a studentship of fifty guineas per annum, to be held for four years, be awarded to the master in laws who shall have passed the best examination.

18. That all persons desirous of being called to the bar, and all candidates for honors, other than candidates for the studentship, may, as they think fit, pass their examination in each branch either at the same time or at separate times ; but the candidates for the studentship must be examined in both branches at the same time.

19. That the examiners be appointed by the senate.

20. That readers be appointed, as at present, by the Inns of Court, the senate appointing the fifth reader, now appointed by the Council of Legal Education, with power for each Bench (if it think fit,) subject to the approbation of the senate, or for the senate, on the joint application of all the Benches of all the inns, to appoint additional readers.

21. The Inns of Courts not to be compelled to call to the bar those who have passed an examination, but to retain their present powers with reference to the calling of students to the bar, and the dis-barring of persons after their call, subject to the appeal to the judges."

"The commissioners would venture to suggest, in conclusion, that the several universities of the realm would, in their judgment, co-operate more effectually in advancing legal education by a sound and liberal training for the students intending afterward to enter upon the profession of the law—a training limited in respect to that study to general principles—than by increasing the amount of special instruction which the Inns of Court should properly supply."

THE MIDLAND INSTITUTE AT BIRMINGHAM. A new Scientific School has just been established in Birmingham. The corner-stone of the building was laid by his Royal Highness, Prince Albert, on the 22d November, 1855, in the presence of a large concourse of the workingmen of that great manufacturing district, and of literary and scientific men from all parts of England. The character of the Institute and the proceedings justify a more extended notice.

Lord Calthorpe, the President of the Institute, in his address in behalf of the Council, to Prince Albert, remarked that the enterprise was one of the results of the Great Industrial Exhibition of 1851, which had shown that to meet the sharp competition of French and other continental workshops in the markets of the world, the English manufacturer and workman must have a higher scientific and artistic training than was provided in existing institutions of education.

"In the design of the Birmingham and Midland Institute, the general features of a Literary and Scientific Institution are combined with those of a school of industrial science.

In the former department provision will be made for libraries, reading-rooms, museums of geology, mineralogy, and natural history, for collections of fine art manufactures, machinery, and mining records, and for lectures and discussions on literary and scientific subjects.

The industrial department, which has received the approval and assistance of the Board of Trade department of science and art, has been already opened with considerable success; it provides systematic lectures and class instruction in mathematics, mechanics, chemistry, and other branches of science which are specially applicable to the manufacturing and mining operations of the district.

It is also intended to provide in the same building improved accommodation for the Government School of Ornamental Art, which has long been established in Birmingham with the happiest success.

Such are the general features of an institution destined, as we hope, to advance not only the material, but also the moral welfare of this great community, by uniting men of all ranks and of divers opinions in the promotion of studies which add dignity to daily labor, enlarge the faculties, refine the tastes, and fill the heart with nobler conceptions of man's destiny, and of God's all-wise, all-bounteous love.

On this commanding site, liberally given for the purpose by the municipal corporation of the borough, a building is to be erected in which literature, science and art, may be worthily enshrined under one roof."

In a speech after the corner-stone was "well and truly fixed," Prince Albert uttered some truths which American manufacturers and workingmen will do well to heed.

"Without a knowledge of the laws of nature which are set in operation in every workshop, we are condemned to one of three states: Either we merely go on to do things just as our fathers did, and for no better reason than because they did them so; or, trusting to some personal authority, we adopt at random the recommendation of some specific, in a speculative hope that it may answer; or, lastly—and this is the most favorable case—we ourselves improve upon certain processes; but this can only be the result of an experience hardly earned and dearly bought, and which, after all, can only embrace a comparatively short space of time, and a small number of experiments. From none of these causes can we hope for much progress; for the mind, however ingenious, has no materials to work with, and remains in presence of phenomena, the causes of which are hidden from it. But these laws of nature—these Divine laws—are capable of being discovered and understood, and of being taught, and made our own. This is the task of science; and, while science discovers and teaches these laws, art teaches their application.

Far be it from me to undervalue the creative power of genius, or to treat shrewd common sense as worthless without knowledge. But nobody will tell me that the same genius would not take an incomparably higher flight if supplied with all the means which knowledge can impart; or that common sense does not become, in fact, only truly powerful when in possession of the materials upon which judgment is to be exercised. The study of the laws by which the Almighty governs the universe is therefore our bounden duty. Of these laws our great academies and seats of education have, rather arbitrarily, selected only two spheres or groups (as I may call them,) as essential parts of our national education—the laws which regulate quantities and proportions, which form the subject of mathematics, and the laws regulating the expression of our thoughts through the medium of language—that is to say grammar, which finds its purest expression in the classical languages. These laws are most important branches of knowledge; their study trains and elevates the mind. But they are not the only ones; there are others which we can not disregard, which we can not do without. There are, for instance, the laws governing the human mind and its relation to the Divine Spirit—the subjects of logic and metaphysics. There are those which govern our bodily nature and its connection with the soul—the subject of physiology and psychology. Those which govern human society and the relations between man and man—the subjects of politics, jurisprudence and political economy, and many others. While of the laws just mentioned some have been recognized as essentials of education in different institutions, and some will, in the course of time, more fully assert their right to recognition, the laws regulating matter and form are those which will constitute the chief object of your pursuits, and as the principle of subdivision of labor is the one most congenial to our age, I would advise you to keep to this speciality, and to follow with undivided attention chiefly the sciences of mechanics, physics and chemistry, and the fine arts in painting, sculpture and architecture. You will thus have conferred an inestimable boon upon your country, and in a short time have the satisfaction of witnessing the beneficial results upon our national powers of production. Other parts of the country will, I doubt not, emulate your example, and I live in hopes that all these institutions will some day find a central point of union, and thus complete their national organization."

The WORKING-MEN'S COLLEGE, in Red Lion Square, London, was opened in November, 1854, with 140 pupils, distributed through classes in Arithmetic, Algebra, English Grammar, Geography, History, Drawing, Geometry, Mechanics, Astronomy, Practical Jurisprudence and in the French and Latin Languages. There was besides an Evening Adult School to prepare pupils for the College in reading, writing and arithmetic. The instruction in the College is given by a number of gentlemen of the highest literary reputation, among whom we see the names of Rev. F. D. Maurice, D. D., late Professor in King's College, Mr. Westlake, Mr. Neale, Mr. Ludlow, and Mr. Ruskin and others, whose reputation give character to the enterprise. The College is designed for adults actually engaged in business, not for children, or boys who are merely preparing themselves for business. It has been arranged that ultimately the members shall be divided into five classes. The first will consist of the general body of Matriculated Students; the second, of Students who obtain a certificate of competency in some one branch of study after they have attended the College for four terms; the third, of Associated Students, who shall prove that they have a competent knowledge in the principal subjects of our teaching, no effort being made to elicit their opinions, but a reasonable knowledge of Scripture History, of English History, of the principles of English Grammar, and of either Geometry or Algebra, being considered indispensable. The fourth class will consist of Fellows, that is, of persons chosen out of the Associates, who shall be considered morally and intellectually capable of assisting in the education of the Students. The fifth class will contain the Council, which it is proposed should be recruited from the Fellows. These arrangements may admit of modifications; but they are the basis of a scheme which we trust will give solidity and unity to our society.

IRELAND.

The sum of £215,200 granted to the Commissioners of National Education in Ireland, was distributed to the following objects: the bare enumeration of the amount and object shows the magnitude which the system has attained from the first grant of £4,328 in 1831, in aid of 789 elementary schools.

1.	Normal Establishment at Dublin for training Male and Female Teachers, viz.,	
	For 2 Professors and 2 Assistants, on the art of Teaching, &c.,	£1,440
	For Board and Travel of Teachers under training—Males,	5,000
	For " " " "	1,250
	For Central Model School Department—Male School,	823
	Female School,	465
	Infant School,	325
	For West Dublin Model School,	585
	For Glasnevin Model Literary and Industrial School at Glasnevin,	285
2.	The Albert Agricultural Training Establishment and Model Farm at Glasnevin, for 90 Agricultural pupils,	4,925
3.	The Glasnevin Model Garden, including Conservatory,	2,000
4.	Nineteen Model Agricultural Schools, &c.,	8,700
5.	In aid of building and furnishing ordinary School-houses,	5,000
6.	" " District Model Schools,	18,540
7.	Salaries of Teachers in National Schools,	117,938
8.	Premiums in encouragement of neatness and cleanliness,	1,000
9.	Gratuities to aged and infirm Teachers,	2,000
10.	Inspection Department—6 Head Inspectors, at £400, 10 First Class Assistants, at £325, 40 Second Class " at £280, 6 Sub-Inspectors at £200 and expenses,	19,900
11.	Book Department,	10,250
12.	Official Establishment at Dublin,	13,000

The Endowed School Commission. A Commission appointed by Parliament has been for some time engaged in inquiring into the management and condition of endowments for educational purposes in Ireland. The inquiry already embraces fifteen hundred endowments, from which it appears that vast funds are either locked up, or diverted from their original channels, or so administered as to be useless for the education of the community at large. In some instances the land bestowed for the support of the school, has been converted into private property; and in others, the income passes through so many hands, that it is absorbed before it reaches the object for which it was given. The inquiry thus far shows that there is a disposable annual income of near $500,000; a sum sufficient to support a scheme of secondary education for each county, supplementary to the national and other elementary schools, and preparatory to the higher institutions. The commission is now engaged in looking into the facilities of education enjoyed in each county, with a view of recommending a plan for the better use of the income of these endowments.

SCOTLAND.

Educational Reform. The spirit of reform is at work in reference to the Parochial Schools and the Universities. It is found that while the population has increased, the facilities of instruction, both in the lower and higher schools, have not been augmented, or their efficiency increased. For the reorganization of the Parochial Schools, three bills were introduced into the last session of Parliament, all of which were lost mainly on account of the difficulty of adjusting the religious question, which is one main objection to the administration of the system as it is. For the extension of the Universities, an Association has been formed, which has presented a memorial to Government, asking for aid by a grant of public money for the more liberal endowment of such existing Chairs as are at present inadequately provided for, and for the endowment of such additional Chairs as may be requisite; *First*, to render the Scotch Universities centers, around which a learned class may form itself; and *Secondly*, to place them, as educational establishments, on something like a footing of equality with the Universities of other countries, where the professorial system prevails. The following table exhibits the

SALARIES OF PROFESSORS AT SCOTCH UNIVERSITIES.

	Edinburgh.	Glasgow.	Aberdeen.			
			St. Mary	St. Salvador & St. Leonard.	King's.	Marischal.
	£	£	£. s. d.	£. s. d.	£. s. d	£. s. d.
Principal,	....	....	93 0 0	55 11 0	20 0 0	60 0 0
Prof. of Ecclesiastical History,	100	....	86 1 8	....	....	50 0 0
“ Hebrew,	30	....	86 1 8	....	....	....
“ Divinity,	30	....	86 1 8	....	*12 0 0	53 0 0
“ Greek,	30	....	86 1 8	55 11 0	10 8 8	43 16 8
“ Mathematics,	30	62	....	55 11 0	....	43 16 8
“ Rhetoric and Belles Lettres,	100	....	....	....	....	....
“ Civil History,	....	....	....	55 11 0	....	43 16 0
“ Physic,	....	75	....	....	....	....
“ Medicine,	....	75	....	55 11 0	10 8 8	100 0 0
“ Materia Medica,	....	100	....	....	....	....
“ Humanity,	30	25	....	55 11 0	10 8 8	200 0 0
“ Logic,	30	11	....	55 11 0	....	....
“ Moral Philosophy,	30	11	....	55 11 0	10 8 8	†43 16 8
“ Natural Philosophy,	30	21	....	55 11 0	10 8 8	43 16 8
“ Civil Engineering,	....	275	....	....	....	....
“ Civil Law,	....	....	....	....	10 8 8	....
“ Medical Jurisprud'ce,	100	....	....	....	....	....
“ Midwifery,	....	50	....	....	....	....
“ Oriental Languages,	....	20	....	....	....	33 0 0
“ Chemistry,	....	200	....	....	....	210 0 0
“ Botany,	100	100	....	....	....	....
“ Anatomy,	....	‡30	....	....	....	150 0 0
“ Pathological Surgery,	100	....	....	....	....	....
“ Surgery,	100	75	....	....	....	100 0 0
“ Astronomy,	300	50	....	....	....	....
“ Natural History,	100	150	....	....	....	....

* £150 additional. † And Logic. ‡ And Botany.

THE DICK BEQUEST.

The Dick Bequest consists of a Fund of £118,787, the income of which, amounting to about £20,000, since 1835, has been distributed annually " to encourage active schoolmasters, and gradually elevate the literary character of the parochial schoolmasters and schools" in the counties of Elgin and Moray, and the neighboring counties of Banff and Aberdeen. The founder of this munificent bequest was James Dick, Esq., of Finsbury Square, London. He was born of poor and respectable parents, in the burgh of Forres, Morayshire, Scotland, upon the 14th of November, 1743. He received a good elementary education in the parochial school of his native town, and at the age of nineteen went to the West Indies, and entered a mercantile house at Kingston, Jamaica, where his talents and industry soon gained for him a share in his employer's business. After twenty years he returned to England with a considerable fortune, to which by persevering habits and judicious speculation, he afterward made large additions. Mr. Dick was married and had a son and daughter. After the death of his wife and son, he made a will, in which, after making liberal provision ($150,000) for his daughter and her children, and providing a fund of £1,000 for the annual distribution of coal among the indigent poor of his native town, he bequeathed the bulk of his estate to the maintenance and assistance of the " *County Parochial Schoolmasters* " of the district of Scotland in which he was born. He died on the 24th May, 1828. By a decree of the Court of Chancery, the administration of the bequest was vested in " the Keeper and Deputy Keeper of the Signet, the Treasurer of the Society of Writers of the Signet, and eight Commissioners chosen by and from among the Commissioners of the Signet ; " and in 1835, the first distribution of the income of the property, which had accumulated to the capital sum of £118,787, took place. The history of the aims and operations of the Trustees, for twenty years, the results of this noble benefaction in behalf of " a neglected though useful class of men," both to the teachers and schools of that section of Scotland, has been set forth in two highly interesting and instructive reports—the first published in 1843, at the end of ten years, and the second at the close of twenty years of their administration. These reports, making two volumes, one of 424 pages and the other of 478 pages, were drawn up by Prof. Allen Menzies, the Secretary of the Trustees, and are valuable contributions to the educational literature of the English language. From these reports we propose hereafter to present a brief view of the manner in which the Trustees have discharged their duty, and to gather a few of the practical lessons as to the administration of educational funds,* both on a large and a small scale, which their experience suggests.

The view upon which the trustees proceeded, was to adopt a system which should affect the school beneficially in all its relations,—that the principle of division, while conveying Mr. Dick's bounty to the deserving teacher, should be such as to advance at the same time the reciprocal claim of the bequest to have the school elevated and improved, and to make this claim be felt not only by the schoolmaster, but by every one connected with the school, and interested in its well-being and progress,—that the attention of all should be directed each to his duty in connection with the school, and that those who had the power to supply any deficiency, should be induced to make an exertion for that purpose.

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* If the School Fund of Connecticut could have been administered on the principles recognized and followed by the Trustees of the Dick Bequest, so as to have quickened the zeal of parents, the diligence of teachers, the liberality of the public and the punctual attendance of children at school, it would have proved an unmixed blessing.

Thus the bequest would not descend upon the parish as it were by an irresistible fatality, without regard to consequent good or evil, but would be looked upon as a thing to be striven for, not for the good of the receiver alone, but for the benefit of all interested in the school, and to obtain which all might more or less contribute by their efforts,—the electors by the choice of a well-qualified teacher,—the teacher by diligence and advancement in learning and skill,—the heritors by giving ample endowment,—the minister by his superintendence and the influence of his counsel with teacher and parents,—the people at large by securing regular attendance, enlarging their children's field of study, and seconding by their authority at home the teacher's efforts for their improvement, and the presbytery by a wholesome and elevating influence brought to bear upon all parties and subjects, and especially upon the vital matter of the religious training of the pupils.

THE CANADA SYSTEM OF PUBLIC SCHOOLS HELD UP AS A MODEL FOR SCOTLAND BY THE EARL OF ELGIN. At a public meeting in Glasgow, on the 4th of January, on the occasion of the freedom of the city being presented to him in consideration of his public services as Governor General of Canada, Lord Elgin thus refers to the system of public education in that province.

> "I need not say to you that there is no subject upon which the people of the United States are more proud than they are in reference to their system of national education, and they certainly have very good reason to be so, because, while we are in this country proclaiming vociferously our zeal for popular education, and proving our sincerity by uniting to overwhelm every specific plan that is produced, there is actually in that country in operation a system that is elevating the intellectual standard of that people to an elevation never before attained by any community. At the last meeting of the American Education Association, a paper was read, representing the system of education in Canada as equal to that in Massachusetts or New York, and the President recommended the system adopted at Toronto, Canada West. I do not think it undesirable that the population of Scotland should know, that there is a country not two weeks sailing from Glasgow, possessing a fertile soil and a genial climate—possessing a population very much resembling what you find in any Scottish county, sharing our views and sentiments on all questions, moral, social, political, and, above all, religious, with the means of attaining elementary education, free of cost, and on conditions that can do violence to no principle, on conditions attainable by every child in the community, and where every child of talent and industry may go to the higher school, where a superior education is given on the same terms, and from the superior school to the University. Now if any lady or gentleman in this room wants to put the question, if we can get all these advantages by going to Canada, why we can not get them without going to Canada, I implore that they will not expect me to answer it."

FRANCE.

An Account of Public Instruction in America. *La Revue de l'Instruction Publique*, the semi-official educational journal of Paris, has been publishing for several months a series of papers on Popular Education in America. Their author, M. Le Roy, professor in the University of Liege, translated some time ago a portion of Dr. Wimmer's excellent work on the Church and the School in this country, and has otherwise qualified himself for a discussion of our systems of instruction.

The following paragraphs translated from his seventh article, give an interesting comparison between the state of things upon different sides of the ocean.

"Public instruction is in our day more of a national business in North America, than in any other country of the world. Not only are legislators well disposed toward existing institutions, but if a new idea is thrown out in the columns of a journal, if a novel method has been tried in this place or that, if a system of administration, without precedent, has been the object of fortunate experiment, the most eminent men in legislative assemblies and in the country receive that idea, take cognizance of that method, study the mechanism of that system, and inquire seriously if they can not find therein some new means of accelerating progress.

The improvement of schools is, so to speak, the fixed idea, the constant pre-occupation of statesmen in America.

Among most European nations we find that public instruction is directed, inspected, administered by special functionaries to whom belongs the initiative in pedagogical matters. There is confidence in their decision, or if there is dissatisfaction it is from a political point of view, as to who in church or state shall direct or inspect the school. Inquiry has less reference to the pupils than to the dominant influence of this or that power.

But in America, where the schools are not governmental but national, the question of education is a popular question. School inspectors are men engaged in active life, in public business, and thus the atmosphere which is breathed in the classes is not sensibly different from that without. The motto, 'Give me the education of a generation, and I will transform the world,' is understood in all its extent by every American citizen. The wisdom of that nation declares that the prosperity by which it awakens the envy of the world, is due in a great measure to the diffusion of light among the masses. The incessant activity, the spirit of enterprise, which distinguish the Americans, would grow weak from the moment when public instruction should cease to be offered equally to all without exception, or should become stationary. The Americans have started at full steam upon a course where they can not stop a single instant; their power, their future depend upon this; the least success in a trial of obscuration (*obscurantisme*) would dismember that society, the condition of whose existence is movement itself. While we are living upon tradition, the Americans are incessantly looking toward the future. While we are discussing systems they are making experiments and profiting by our own.

This is why school matters are every body's business; why every year in all public meetings, the problem of increasing the national strength by instruction is continually taken up; this is why the popular representatives and not merely official functionaries, are informed upon educational questions and are charged with their solution."

School for Girls at Paris. The following description of a Boarding School (*Pension*) for Girls in Paris, is extracted from a letter of a correspondent of the New York Tribune, who was for several years a teacher in the Public High School at Hartford, Conn.

"The pupils rise at six in the morning and retire at nine. They sleep in large dormitories with their teachers and surveillantes. The beds are single, on iron bedsteads, ranged in rows along the rooms. One wonders how the occupants can be so ruddy and well when air is so feared in their sleeping-apartments, and so little water furnished in their dressing-rooms. But entire warm baths are frequent in the establishment, and the class-rooms and gardens offer more fresh air during the day than our school-girls are accustomed to enjoy.

The refectory is a bare, uncomely room, on the rez-de-chaussée, with brick floor, wood benches and oil-cloth covered tables. The fare is good, abundant and most healthful. At eight in the morning, after each class has had its prayers, and some have been to mass, all come in flocks to breakfast. Each mistress stands at the head of her table and says grace, meantime crossing herself twice, while the pupils do the same. Small white earthen bowls with bread are placed before each, and a choice of hot or cold milk is offered. Tea, coffee, chocolate and soup are prepared for those who need them, or have made a special arrangement for either. At noon the second breakfast is served, which is almost like a dinner, and at three, baskets of dry bread are handed about during recreation. At five the pupils dine. The lady of the house and her superior teacher serve both the dinner and second déjeuner, while servants hand the plates of rations to the various tables. The cook is incited to excellence by her mistress's constant inspection of her productions, and on the other hand, the girls are restrained from grumblings by the same presence.

Contrary to the custom with us in similar schools, the head of the Institution, her family and parlor boarders, take their meals apart from the scholars. Thus the privacy of domestic life is preserved, and the table kept open to any friends ; thus the elegancies and comforts which a large establishment precludes can be gathered into the smaller circle of a private family.

The system of French female education is very different from that in our own country. Here the dead languages are left to blue stockings. Simple arithmetic is the extent of mathematics acquired ; but history, literature, style, composition, reading and declamation, are much more studied than in our schools. The best professor of geography and history which Paris affords, spends three hours a day three times a week in the various classes. Monsieur P. is just the opposite of what his name would indicate. He is a tall man, bearing a high head replete with the profoundest erudition. He was instructor to the Queen of Spain, and wears her decoration on his breast. His lectures are mostly written down by the pupils and committed to memory for future examinations.

The Professor of Rhetoric renders his lessons also most useful and interesting. He is a man of high rank among French savans, yet he is proud to be a teacher of youth. He is not only master of eloquence and style, but a distinguished writer on botany and medical science—a kind of universal and most agreeable genius. He comes but once a week for two hours. He reads the girls' compositions aloud—commends their excellencies and criticises severely their faults. He listens to their repetitions of Boileau's "Art Poetique" and their repeated readings of some chosen bit of poetry or prose, previously studied and read aloud under the direction of the superior mistress. The History of Literature and the lives of great men are copied from his manuscripts and committed to memory word for word for future *concours*. His lectures take the form of conversation, interspersed with the choicest quotations and the nicest criticisms. When time permits he recites extracts from the great poets, or reads a popular play or witty story. Morality, thought and style are sought in all. His memory is a great store-house of all he has ever known. Nothing has been forgotten either of originals or translations. Homer, Virgil, Dante and Racine, flow with equal harmony from his lips. The age of Louis XIV., and, par excellence, the writings of Madame de Sévigné, are his favored loves in modern literature.

French girls read perhaps less than ours, yet far surpass them in acquaintance with native authors. They excel us, too, in a discriminating use of words and in a delicate appreciation of their value. With them style in expression is of parallel importance with distinction and grace in manners.

The great models, such as the letters of Madame de Sévigné, the plays of Corneille and Racine, the orations of Bossuet, and the fables of Lafontaine, are most familiar to their lips.

Beside the superior instruction given here in Ethics and Belles Lettres, there is another department of education, which, I fear, your Protestant prejudices will deny as really existing. It may be styled the Professorship of Religion. The religious teacher is as punctual as the masters of music and drawing. Though we complain that the Catholics refuse the Bible to the people, I do not believe there is any school in the United States where so much of it is learned as here. It is true that the Old Testament is refused to children—yet its sacred history is selected and arranged in a most complete and interesting way, and is learned by heart in the most conscientious manner. Beside this, the Psalms and most of the New Testament are also committed to memory. The history of the Church, the lives of the fathers and of the saints, form the prominent part of a French girl's education.

Not only is the superintendent of the house rigid in enforcing religious instruction upon the Catholics, but the Jew and Protestant pupils are as strenuously obliged to fulfill the demands of their own faith. There are but two little Jewesses in the school, and for them a Rabbi comes once a week to teach them their catechism and sacred history. Neither is allowed to taste pork, though both are sullen when ham or mixed pâtis are given to the others at déjeuner. The superior mistress, that angel of the house of whom I spoke in a former letter, has arranged a table-grace for them alone, and they must say it too as often as they eat, 'For,' says she, 'Jews as well as Christians should thank God for all His benefits.' They come night and morning to her knees to say their prayers. It is a curious picture that—those two little dark-eyed Israelites praying at the feet of a Jesuit. But what noble, generous principle exists in the latter to so carefully and conscientiously train these children according to the faith of their fathers.

The Protestant girls go to the English teacher for prayers, and she accompanies them to the Lutheran or English church, and to their religious instruction for their first communion. I can scarcely imagine how the mistress would regard a grown-up American girl who had never made a profession of religion by the communion. A holy pity would seize her, and perhaps she would send at once for some religious instructor of her parents' faith to convert the benighted youth. But if the parents had no faith? Then I am puzzled.

Several American Protestant girls have acquired a thorough knowledge of French at this school. Their life here has been pleasant, their training maternal, their education useful. The expenses here are remarkably moderate in comparison with those of our city schools. Two hundred dollars per annum includes board and French tuition. Other languages and the accomplishments of course are extra. I had forgotten to mention that the pupils wear uniform within the pension, which makes the expenses of every-day dress very trifling. In summer their dresses are of purple calico; in winter of black or blue merino; a black apron with low waist and sleeves at option is always worn. Black cloaks and mantillas, with simple bonnets following the fashion, are required of the Catholics, who go together to church. The Protestants are accustomed to go out in their usual holiday suits.

CATALOGUE OF THE IMPERIAL LIBRARY, PARIS. The second volume of the Catalogue of the Imperial Library of Paris, has just been issued from the press of Didot. It includes all works relating to the History of France published after the reign of Louis XIV. till the 1st Vendémiaire, in the year I of the Republic, (22d September, 1792.)

It contains 20,272 titles, which, united to the 16,026 titles of the first vol., make 36,298 titles of articles relating to the History of France, thus far catalogued.—*Revue de l'Instruction Publique.*

HOLLAND.

We are indebted to Professor Henry B. Smith, D.D., of the Union Theological Seminary, for the following summary of the condition of the

DUTCH UNIVERSITIES.

Annales Acadamice CIƆIƆCCCL—CIƆIƆCCCLI. 4° Lugdun, Batavorum, 1855. pp. 240.

These Annals present the statistics of the various Dutch Universities in 1850–1, with the usual academical orations. The work was issued in 1855, so that the statistics lag four years behind. But in so stable a country as Holland, the changes have, probably, not been very great.

The University of Leyden comes first in order. Johannes De Wal, rector magnificus, of the Faculty of Law, in a Latin oration of twenty pages, discourses upon the "Detriment which the Neglect of the Historical Study of our Jurisprudence has brought upon the Country and Science." Two other orations, in the Dutch language, follow: one by Dr. R. P. A. Dozy, on the "Study of the History of the Middle Ages," the other, by Mr. S. Vissering, on "Political Economy."

The whole number of students in the University of Leyden, 1850–1, was 357; viz., 177 in the Faculty of Law; 86 in Theology; 14 in Mathematics and Physics; 25 in Theoretic Philosophy and the Humanities, and 55 in the Medical Faculty. Besides these, 99 students, belonging to the *Athenæums*, are inscribed upon the University books, as candidates for the degree of doctor in the different Faculties. Forty such 'doctors' are reported as created in the Faculty of Law, after presenting and defending their dissertations and theses, two or three days in each month being assigned for such exercises; in the Theological Faculty only two such doctorates were conferred, and only one other "honoris causa,"—a good example for our colleges; two received this degree in Mathematics; five in Philosophy; and thirty in Medicine.

The Lectures given in the different Faculties of this University, are the following:

In the Faculty of Law, J. de Wal, on the Encyclopædia and Methodology of Law, three hours each week; on the History of Roman Law, three hours; on the Rise and Progress of Jurisprudence among the Germans, especially in the Netherlands, three hours; and on Mercantile Law, two hours. C. I. Van Assen, Interpretation of the "Libri Digestorum," three hours; the Roman Civil Law, three hours; Commentaries on the Institutes of Gaius, two hours; the Present Civil Law, three hours; the Order of Judicial Causes, with forentic exercises, three hours. H. Cock, Public Law and the Law of Nations, three hours; Criminal Law, three hours; Natural Law, three hours; the Order of Criminal Trials, three hours. S. Vissering, Statistics of the Netherlands, three hours; Diplomatic History of Europe, three hours; Political Economy, three hours a week.

In the Faculty of Theology:—W. A. Van Hengel, the venerable senior of this Faculty, though prevented from lecturing by age, met the more advanced students for familiar conference "de variis rebus gravioris argumenti." N. C. Kist, read on Church History, three hours a week; on the History and Theory of Christian Ethics, three hours; on the History of Doctrines, two hours; on the

Sources of Ancient Church History, one hour; and directed theological discussions, and humiletical exercises, one hour each. J. F. Van Oordt, Systematic Theology, three hours; Gospel and Epistle of John, two hours; Theological Encyclopædia, two hours; Institutes of the Orator, two hours. J. H. Scholten, the Words of Christ in the Gospel of John, three hours; Natural Theology, or "History of speculation respecting God," two hours; the characteristic words and phrases in which the Nature of Christianity is expressed, two hours; also, discussions and sermons, one hour each.

In the Faculty of Mathematics and Physics:—J. Van dez Hoeven, Zoölogy, three hours; comparative Anatomy, two; also, private teaching in Mineralogy and Geology. A. H. van der Boon Mesch, Organic Chemistry, three hours; Inorganic Chemistry, three; Phamacentics, two; Husbandry, two; with experiments in the laboratory, and a weekly colloquy on Chemical Physiology. I. G. Verdam, Geometry and Trigonometry, plain and spherical, three hours each; the Differential and Integral Calcubus. F. Kaiser, Theoretical Astronomy, three hours; practical, three; popular, two; Algebra, three; with other practical exercises. H. G. de Vriese, Phytography, six hours; History (Medical) of Plants, three; Physiology of Plants, four; with botanical excursions and other exercises. P. L. Rijke, Experimental Physics, five hours; Mathematical Physics, two hours.

In the Faculty of Theoretic Philosophy and the Humanities; J. Bake, Cicero's Orations, three hours; Attic History, two hours; Pædagogic Schools, theory and practice, four hours. J. M. Schrart, on Style and Eloquence, (Dutch,) three hours; History of the Netherlands, three hours; interpretation of Vondelius' Tragedy, *Gysbrecht van Amstel*, one hour; also, on the Critical History of Eloquence and German Antiquities. A. Rutgers, Prophecies of Jeremiah and the Psalms, three hours; Second Book of Samuel, two; Hebrew Antiquities, three; Sanscrit Grammar and Anthology, two; the Sacuntala and Hitopadesa of Calidasus, one hour. T. G. J. Juynboll, Elements of Hebrew, four hours; Arabic, Chaldee and Syriac, three; Hamaker's edition of an Arabic work "de Expugnatione Memphidis et Alexandriæ," read with students, one hour; Arabic Chrestómathy, one hour; Songs of Hamasas, two hours; the Koran, two; Syriac Chrestômathy, one hour. J. H. Stuffken, Logic, three hours; Metaphysics, two hours; History of Philosophy, two hours; also, on Pædagogics. C. G. Cobet, Herodotus, three hours; Roman Antiquities, three; Elements of Metrical Art, two; Greek Palæography, four; also, the direction of public disputations. R. P. H. Dozy, Prof. Extraord, History of Guelphs and Ghibellines, three hours; some difficult Historical Questions and various matters of Literary History, two hours.

In the Medical Faculty:—C. Pruys van der Hoeven, Pathology, three hours; Medical Practice, daily; History of Medicine, two hours. G. C. B. Suringar, Therapeutics and remedies, five hours; the Pharmacopœia, three; Special Diseases, three hours; with medical practice. J. W. Krieger, Surgery, three hours; Clinsical Exercises, three; Surgical Operations, two; the Diseases of the Eye, Forensio Medicine, two hours. A. E. Simon Thomas, Prof. Extraord, Obstetrics, one hour; also, lectures on the Diseases of Woman; "Praxin Obstetriciam in Nosocomio Academico, qusties necese erit, neoderabitur." H. Halbertsma, Prof. Extraord, Anatomy, five hours; Physiology with microscopic observations, five; Practical Dissections, four hours each day.

Besides these, Prof. P. O. van dez Chïs, gave two lectures a week on Numismatics; C. A. X. G. F. Sicherer, on the Odes of Klopstock, and C. G. Lokkers, taught every day "aptum et elegantem gladii usum."

We have given thus, in full, the course in this leading University of Holland, that some general idea might be formed of the extent of the instruction in the various departments. Many of these names are widely known outside of Holland; as that of the venerable Van Hengel, who also directs the distribution of the prizes for the Society of The Hague, in Defense of the Christian Faith; of Kist, whose works in Church History, with those of Royaards of Utrecht, are widely known; of Hœvon, who has a European reputation; and of Juynboll, who, within the past five years has edited and published more works illustrative of Oriental literature than all the scholars of France and England, together. In a University with 237 students, Leyden has thirty-one Professors; five in Law; four in Theology; seven in Mathematics and Physics; eight in Philosophy; seven in Medicine; besides three other teachers.

The account of the University of Utrecht, is introduced with an instructive Latin Oration by the Rector, B. J. Lintel de Geer, beginning with a special address to nine classes or personages, among his auditors, on the "Laudable Efforts of the Roman Emperors for the Instruction of Youth," together with an account of the University for the preceeding year. The whole number of students was 381; 148 in theology; 166 in law; 43 in medicine; 13 in mathematics and physics; 11 in philosophy, etc. Twenty-six were also inscribed from the Athenæums as candidates for the doctorate; 21 doctors-in-law were made; 3 in philosophy; 17 in medicine; 2 in mathematics; 1 in theology.

In the Faculty of Law, the Professors are, A. C. Holtius, who read on the Pandects; B. J. L. de Geer, on Justinian, Roman Law, Encyclopædia of Law, and Gaius; J. van Hall, the Civil Law of Holland, Mercantile Law, Judicial Processes, and the History of Dutch Law; I. Ackersdyck, Modern Political History, Statistics and Political Economy, G. G. Vreede, Natural Law, History and Institutes of Dutch Law, and the Law of Nations, "duce Henr Wheaton, Eléments du droit international, Lips et Par. 1848;" and on Criminal Law.

In the Faculty of Theoretic Philosophy, etc. A. van Goudœver, read on Sallust and Virgil, and Roman Antiquities; S. Karsten on Plato (Phædon), and Aristophanes (Ranae), and on Greek Antiquities; I. C. Swyyghuisen Grœnewoud, Hebrew Grammar, and Antiquities, Arabic; L. G. Visscher, Literature and History of Belgium, and Holland; S. Karsten, Ancient History, and History of Ancient Philosophy; C. G. Opzoomer, Logic, Metaphysics and History of Modern Philosophy.

In the Medical Faculty, I. L. C. S. van der Kolk, gave lectures on Anatomy and Physiology; B. F. Suerman on Pathology and Surgery; G. I. Loncq, on Materia Medica and Therapeutics; G. I Mulder, on Pharmacy; P. Harting, on Anatomy and Pharmacology; F. C. Donders, on Biology, Anthropology and Forensic Medicine.

In Mathematics and Natural Philosophy, R. van Rees, read on Physics and Mechanics; G. I. Mulden, on Chemistry; P. T. I. de Fremery, on Chemistry applied to the Arts; C. A. Bergsma, on Botany; T. G. van L. de Iende, on Zoölogy and Anatomy; C. H. B. de Ballat, on Mathematics, etc.

In the Faculty of Theology, H. I. Royaards, lectured on Church History and Ethics; H. Bouman, on Natural Theology, Hebrew Poetry and the Epistle to the Romans; H. E. Vinke, on Dogmatic Theology, the Theology of Paul, and Pastoral Theology. German, French, and the "elegant use of the sword" are also taught.

The University of Utrecht, with 381 students, has twenty-four professors; five in law; five in philosophy; six in medicine; five in mathematics and physics; and three in theology.

The University of Groningen, is widely known by its new theological tendencies, akin to the modern German of the school of Schleiermacher. The Oration, in Latin, by the rector, F. Z. Ermerins, of the Medical Faculty, is on the "Perpetual Charge and Motion of Matter and Form in Life." This University has twenty professors: four in medicine; five in mathematics and physics; three in theology; five in philosophy; three in law. Its students numbered 228; 44 in medicine; 3 in mathematics and physics; 64 in theology; 7 in philosophy; and 110 in law. Sixteen doctorates were conferred in medicine; one in theology; one in mathematics; two in philosophy; and twenty-two in law.

The professors in the Faculty of Law, read as follows:—H. Nienhuis, Civil and Mercantile Law; J. H. Philipse, Justinian, the Pandects, etc.; C. S. Numan, Crimes and Punishments, the Nature of Law, the Political History of Europe, and Political Economy.

In the Medical Faculty; J. B. de la Faille, on Medical Practice, Forensic Medicine and Obstetrics; F. Z. Ermerins, on Materia Medica, Physiology and Pathology; J. H. Jansen, on Surgery and Anatomy, with classical lectures.

In the Mathematics and Physics:—T. van Swinderen, lectured on Natural History; H. C. van Hall, on Botany; I. G. Ermerins, on Arithmetic, Algebra, and Geometry; N. Mulder, on Chemistry; G. A. Enschedé, on Trigonometry, Algebra, and Geometry.

In the Faculty of Theology, Prof. P. F. de Groot, read on Church History, Theological Encyclopædia, Natural Theology, and the History of Modern Missions; L. G. Pareau, on Dogmatics and Apologetics, Christian Ethics, Hermeneutics, and Hebrew Poetry; G. Mûurling, on the Critical History of the New Testament, the Epistle to the Romans, and Practical Theology, (including Catechetics, Homiletics, and Liturgics.)

In the Faculty of Theoretic Philosophy and the Humanities, F. C. de Greuve, on Metaphysics, Logic, Ethics and Psychology; L. A. C. Rovers, on Modern History, Roman and Greek Antiquities; I. I. P. Valeton, on Hebrew Grammar, Hebrew Antiquities, the Semitic 'Dialects, the first Book of Kings, and the Psalms; J. A. C. van Heusde, the author of an admirable work on the Platonic Philosophy, lectured on Cicero's Tusculan Questions, on Aristophanes, on Plato's Republic, and the History of Greek Criticism; M. de Vries, on the History of Holland, with its Language and Eloquence, and on Sanscrit, with any who might apply.

The "illustrious Athenæum of Amsterdam," is included in these Annals; it had 152 students; 4 in philosophy; 7 in letters; 58 in law; 64 in theology; and 19 in medicine. It numbers fifteen professors:—three in Mathematics and Physics, E. H. von Baumhauer, the President, F. A. G. Miquel, and C. Matthes; four in Philosophy, D. I. van Lennep, I. Bosscha, H. Begermann, and P. J. Veth; two in Law, C. A. den Tex, and M. D. A. van der Hœven; one in Theology, G. Moll; and five in Medicine, Ger. Vrolik, Guil. Vrolik, C. B. Tilanus, P. H. Suringar, and J. van Geuns.

The "illustrious Athenæum of Deventer," has six Professors; J. Verberg, in Theology; P. Bosscha, in Classics; T. D. van Twist, in Law; M. J. Cop, in Natural Philosophy; G. I. A. Jonckbloet, in History; T. S. M. van der Willigen in Physics. The number of its students is not given.

These Athenæums appear not to have the power of conferring degrees, but such of their students as wish to obtain degrees, are enrolled, and examined, for that object, in the Albums of the Universities.

The leading courses of lectures are still given in the Latin language. In the programmes, the fact that a particular course is in Dutch, is sometimes distinctly stated, as an exception.

The general arrangement of the Faculties and lectures is like that of the German Universities, excepting that there are five Faculties, instead of four. In the German High Academies, the Faculty of Philosophy comprises the subjects contained in the "Facultas Disciplinarum, Mathematicarum et Physicarum," and in the "Facultas Philosophiæ Theoreticæ et Litterarum Humaniorum," of the Dutch Universities. In the latter, too, the instruction in the Oriental languages, including the Hebrew, is assigned to the "Facultas Litterarum Humaniorum;" in the German Universities, the interpretation of Scripture books, Hebrew Antiquities and History, would generally fall to the Faculty of Theology.

When shall we be able, in this country, to publish such a Programme for a University course, as that of the University of Leyden?

PUBLIC SCHOOLS.

The following Table, taken from Lippincott's Pronouncing Gazetteer, gives the Number and Attendance of the Public Schools in 1851.

Provinces.	Area in sq. Miles.	Population in 1853.	Schools 1851.	Attendance 1851.
North Brabant,............	1,988	405,525	408	41,634
Gelderland,...............	1,972	387,423	400	39,098
South Holland,............	1,180	591,493	460	63,911
North Holland,............	966	514,755	530	61,782
Zealand, ...	644	165,075	155	6,034
Utrecht,..................	532	155,324	153	16,771
Friesland,................	1,272	259,508	355	34,118
Overyssel, ...	1,312	227,683	238	34,805
Groningen, ...	908	197,101	246	31,706
Drenthe, ...	1,032	87,944	140	11,965
Limburg,..................	856	211,401	210	19,191
Total, ...	12,662	3,767.671	3,295	361,015
Grand Duchy of Luxemb'g '51	981	194,619	....	....
Total, ...	13,643	3,962,290	....	....

If to the number of children (361,015) attending the Public Schools, be added, the number (23,000) attending Schools in Special Foundations; the number (40,000) attending Private Schools, and about 5,000 students attending the Universities, Athenæums, and Special Schools, we find about 430,000 persons, or one in every eight of the population in school.

PRUSSIA, SAXONY, AND AUSTRIA.

GERMAN UNIVERSITIES.

Slight discrepancies which may appear, on a comparison of the following tables, are to be accounted for, by the fact that there is occasionally a difference in the dates upon which they are based. As these dates, however, are always noted, no error can ensue. Pains have been taken to procure the most recent and reliable information:—part of it now first appears in print.

Tables showing the number of Professors, in the different faculties, in the Universities of Prussia, Austria, and Saxony.

KINGDOM OF PRUSSIA.

The following table is compiled, and the remarks upon it are mainly derived from a work now publishing in parts, at Leipsic, entitled "Der Preussische Staat, Handbuch der Statistik; von A. Franz."

TABLE I.—Prussian Universities.

Location.	Date of Foundation.	Number of Teachers.						No. of[§] Students
		Theol.	Law.	Med.	Phil.	Inst.[*]	Total.	
Berlin,	1809	11	16	35	89	8	159	2100
Bonn,	1818	15	10	11	48	6	90	900
Breslau,[†]	1702	18	7	19	35	13	92	800
Greifswald,	1456	7	7	9	17	5	45	200
Halle,[‡]	1694	10	6	8	38	6	68	625
Königsberg,	1543	7	6	11	29	6	59	325

Berlin, as a whole, is far in advance of all the other Universities. Being the capital of the Kingdom, its libraries, museums, and other attractions for men of letters, are naturally larger and better than elsewhere. It is strong in all its Faculties, especially so in that of Jurisprudence; but in Theology, it is considered as standing second to Halle. As Halle is preëminent in Evangelical Theology, Breslau is in the Catholic; Bonn excels in the Faculty of Jurisprudence, Greifswald in Medicine, and Königsberg in Philosophy.

At Berlin, about one third of the students attend Law lectures, and the remainder are nearly equally divided among the three other faculties; Philosophy generally standing foremost; then Medicine, then Theology. At Bonn, the number of students in Law, also exceeds that in any other faculty. At Breslau, more than one fourth of the students belong to the Catholic Theological department. The other faculties usually number between 100 and 170 students. More than one third of the whole number of students in Greifswald, attend the Medical lectures. Half of the students at Halle are usually Theological. The Philosophical faculty at Königsberg, includes more than one third of all the students. It is usually said, in general terms that, in Berlin, one third, in Bonn, one fourth, and in Halle, one fifth of the students are from abroad; but these proportions, as will be seen by Table IV, are somewhat over stated. In the other Universities of Prussia, the number is much smaller.

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[*] In the column headed "Instructors," are included the teachers of Modern Languages, of Horsemanship, etc., etc.

[†] The University of Frankfort, on the Oder, was united with that of Breslau, in 1811.

[‡] The University of Wittenberg, founded in 1502, was united with that of Halle in 1815.

[§] As the number of the students varies from year to year, the average attendance, during several years past, is given in this table.

EMPIRE OF AUSTRIA.

The following information is derived from Hain's "Handbuch der Statistik des Oesterreichischen Kaiserstaates," recently published in Vienna. The table is based upon the returns of 1851, but the figures are sufficiently near the average for all practical purposes.

TABLE II.—Austrian Universities.

Location.	Date of Foundation.	Number of Professors. Theol.	Law.	Medical.	Phil.*	Total.	No. of Students.
Cracow,..........	1343	4	9	14	22	49	240
Padua,...........	1228	6	10	23	21	60	1574
Pavia,...........	1361	—	9	24	16	49	1619
Pesth,..........	1465	9	11	24	27	71	419
Prague,..........	1348	10	17	49	33	109	1390
Vienna,.........	1365	9	24	47	36	116	2416
Gratz,...........	1486	7	12	—	15	34	457
Innspruck,........	1672	—	9	—	6	15	218
Olmutz,..........	1581	7	6	—	10	23	312
Lemberg,........	1784	9	7	—	15	31	699

In Vienna, nearly one half of the students are in the faculty of Law; about one third in that of Medicine; while less than one twelfth are in that of Theology. At Prague more than one half are law students. Considerably more than one half at Pesth, are in the Medical faculty; while Philosophy with twenty-seven instructors, has only three students! In Pavia again, more than one half are law students. At Padua, Law and Medicine each number about one third of the students. At Cracow, the faculties of Law and Medicine, each include more than one third of all the students, while Theology has only thirteen followers. In the other Universities, law students predominate.

In the whole number of 9,546 students, there are, Germans 2,100, Slavonic 2,995, Magyar 585, Italians 3,297, Romanic 65, Jews 489, Foreigners 15.

It should be mentioned that there are ten Seminaries for Theology, distinct from the Universities, with fifty-four professors and four hundred students.

KINGDOM OF SAXONY.

Although Saxony has many excellent institutions for higher education in special branches of study, it has but one completely organized University. Hübner's "Jahrbuch für Volks-wirthschaft und Statistik," for 1854 gives the following information concerning it.

TABLE III.—University of Saxony.

Location.	Foundation.	Theol.	Number of Professors. Law.	Med.	Phil.	Total.	No. of Students. (1852-3.)
Leipsic,	1409	15	16	33	46	110	786

Of these 786 students, 325 were in the Faculty of Jurisprudence, 218 in Medicine, 162 in Philosophy, and 81 in Theology.

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*Including at Pavia and Padua, the Mathematical Faculties which are nominally distinct.

TABLE IV.—Professors and Students in the German Universities in Summer of 1853.

Universities.	*Professors.* Ordinary Professors.	Extraordinary Professors.	Honorary Professors.	Privat Docents.	Instructors in Language and Exercise.	Total.	*Students.* Theology. Catholic. Citizens.	Foreigners.	Theology. Protestant. Citizens.	Foreigners.	Jurisprudence, Cameralia, &c. Citizens.	Foreigners.	Medicine, Surgery, Pharmacy. Citizens.	Foreigners.	Philosophy, Philology. Citizens.	Foreigners.	Total No. of Foreign Students.	No. of Matriculated Students.	No. of not Matriculated Students.	Total No. of Students, (Matric. and not Matric.)
Vienna.....	56	15	..	35	10	116	194	1	30	..	741	3	875	42	103	5	78	1964	430	2403
Munich.....	50	14	11	15	4	94	199	38	...	..	791	58	277	87	405	45	228	1893	...	1893
Berlin	52	41	7	60	8	168	...	..	149	39	526	106	254	62	253	110	317	1491	675	2166
Prague	37	24	..	23	4	88	135	4	...	..	465	1	294	12	111	3	28	1625	144	1169
Bonn.......	47	13	..	24	8	91	202	4	47	12	248	35	86	8	153	67	126	862	34	836
Breslau	39	15	..	24	14	92	246	3	37	1	271	3	88	6	146	5	18	806	31	837
Leipsic.....	44	32	2	27	4	109	...	..	105	50	262	79	150	94	36	18	241	794	...	794
Tübingen ..	37	13	3	20	6	79	116	45	123	28	178	35	98	22	88	10	140	743	...	743
Heidelberg..	34	12	1	33	11	91	...	..	49	24	77	423	48	57	9	32	536	719	33	752
Würzberg ..	30	7	1	3	5	46	91	..	...	..	186	5	103	199	118	3	207	705	...	705
Göttingen ..	46	21	..	28	14	109	...	..	80	34	98	123	125	78	67	64	299	669	...	669
Halle	35	10	..	19	7	71	...	..	283	51	147	14	58	7	50	6	78	616	45	661
Erlangen ...	26	10	2	4	5	47	...	..	132	72	131	5	63	5	15	8	90	431	...	431
Jena	24	22	8	6	10	70	...	..	57	46	74	23	60	25	49	86	180	420	12	432
Giessen.....	31	16	2	7	1	57	...	..	45	1	161	18	108	41	26	2	62	402	...	402
Konigsberg .	30	8	..	16	6	60	...	..	52	..	168	...	70	4	49	4	8	347	...	347
Munster	10	4	..	3	1	18	164	23	...	..	...	...	...	...	124	17	40	328	...	328
Freiburg...	26	1	..	7	4	38	151	37	...	..	51	4	52	13	15	4	58	327	29	356
Grätz.......	16	3	4	6	3	32	94	..	...	..	173	1	...	..	72	3	4	250	93	343
Marburg....	29	12	..	14	7	62	...	..	79	7	45	...	65	12	32	7	26	227	20	247
Innspruck...	15	1	..	2	4	22	...	..	...	..	179	...	51	6	17	1	7	221	33	254
Greifswald..	25	8	7	10	5	55	...	..	25	..	55	2	80	1	35	6	9	204	4	208
Olmutz.....	10	1	..	1	1	13	130	..	...	..	70	...	...	...	...	...	...	200	...	200
Zurich	19	16	..	16	..	51	...	..	20	..	35	4	76	18	28	8	30	189	16	205
Berne	13	17	2	8	..	40	...	..	34	1	51	...	57	1	12	1	3	157	...	157
Kiel	17	11	..	9	6	43	...	..	25	..	50	3	38	4	12	...	7	132	...	132
Rostock	21	3	..	7	..	31	...	..	15	5	49	5	19	5	9	1	16	108	...	108
Basle	21	3	3	12	..	39	...	..	5	30	6	2	5	13	2	1	46	67	?	67

TABLE V.—Whole number of students, matriculated and not matriculated, in the German Universities, during both semesters of 1853.

In Summer Term, 1853.	In Winter Term, 1853-4.
1 Vienna,........2403	1 Vienna,........2584
2 Berlin,.........2166	2 Berlin,.........2204
3 Munich,........1893	3 Munich,........1810
4 Prague,........1169	4 Prague,........1218
5 Bonn,..........896	5 Bonn,..........888
6 Breslau,.........837	6 Breslau,........807
7 Leipsic,.........794	7 Leipsic,.........807
8 Heidelberg,......752	8 Tübingen,.......742
9 Tübingen,........743	9 Heidelberg,......718
10 Wurzburg,......705	10 Wurzburg,.......706
11 Göttingen,.......669	11 Göttingen,.......699
12 Halle,..........661	12 Halle,..........650
13 Jena,...........432	13 Erlangen,........473
14 Erlangen,........431	14 Giessen,........380
15 Giessen,........402	15 Jena,...........380
16 Freiberg,.......356	16 Freiburg,.......376
17 Königsberg,.....347	17 Gratz,.........348
18 Gratz,..........343	18 Münster,........330
19 Münster,........328	19 Königsberg,.....326
20 Innspruck,.......254	20 Innspruck,.......278
21 Marburg,........247	21 Marburg,........258
22 Greifswald,......208	22 Zurich,..........248
23 Zurich,..........205	23 Greifswald,......222
24 Olmutz,.........200	24 Olmutz,.........203
25 Berne,..........157	25 Berne,..........175
26 Kiel,............132	26 Kiel,............142
27 Rostock.........108	27 Rostock,........111
28 Basle,..........67	28 Basle,..........102

NEW ENGLAND COLLEGES.

BY REV. J. N. TARBOX.

SECRETARY OF AMERICAN EDUCATION SOCIETY

The following Tables have been prepared for the purpose of presenting together, the present condition of the Colleges of New England. The facts here embodied are drawn from the Catalogues of the *present year*, 1855–6.

In a subsequent number we may resume the subject, and give similar facts with reference to Colleges in other parts of the country.

TABLE I.—Colleges of New England, in the order of their Seniority, with the names of their several Presidents, the denomination to which they belong, and the number of Students in them now as compared with the number fifteen years ago, together with the whole number of graduates.

Name of College.	Where Located.	When founded.	Name of President.	Denomination.	Number of Students for year 1840-1.	Number of Studenst for year 1855-6.	Alumni.
Harvard College,.....	Cambridge, Mass.,	1638	Rev. James Walker, D.D., LL. D.,..	Unitarian, ...	240	365	6,800
Yale College,........	New Haven, Conn.	1700	Rev. Theo. D. Woolsey, D.D., LL. D.,	Congregational,	429	473	6,500
Brown University,...	Providence, R. I.,.	1764	Rev. Barnas Sears, D.D.,..........	Baptist,.......	166	223	1,860
Dartmouth College, ..	Hanover, N. H.,..	1769	Rev. Nathan Lord, D.D.,..	Congregational,	341	258	4,187
University of Vermont,	Burlington, Vt., ..	1791	Rev. Calvin Pease,...............	Congregational,	110	103	596
Williams College,....	Williamsto'n, Mass	1793	Rev. Mark Hopkins, D.D.,.........	Congregational,	155	224	1,557
Bowdoin College,....	Brunswick, Maine,	1794	Rev. Leonard Woods, D.D.,........	Congregational,	165	186	1,151
Middlebury College,..	Middlebury, Vt.,..	1800	Rev. Benjamin Labraee, D.D.,......	Congregational,	46	75	940
Waterville College,...	Waterville, Maine,	1820	Rev. Robert E. Pattison, D.D.,......	Baptist,.......	65	66	267
Amherst College,....	Amherst, Mass.,..	1821	Rev. William A. Stearns, D.D.,.....	Congregational,	157	218	1,147
Trinity College,......	Hartford, Conn.,..	1824	Rev. Daniel R. Goodwin, D.D.,.....	Episcopal,.....	80	72	506
Wesleyan University,.	Middletown, Conn.	1831	Rev. B. P. Edmund S. Janes, D.D.,..	Methodist, ...	133	116	501
Norwich University,..	Norwich, Vt.,....	1834	Rev. Edward Bourns, LL. D.,......	Episcopal,.....	...	83	......
Tufts College,........	Somerville, Mass.,	1855	Rev. Hosea Ballou, 2nd, D.D.,......	Universalist,...	...	32	......
Total Alumni, ...	....	....	....	....	...	...	25,812

TABLE III.—In the following table, the undergraduates connected with the several New England Colleges are assigned to the States and Territories from which they came.

	Alabama.	Arkansas.	California.	Connecticut.	Delaware.	Florida.	Georgia.	Illinois.	Indiana.	Iowa.	Kentucky.	Louisiana.	Maine.	Maryland.	Massachusetts.	Michigan.	Missouri.	Mississippi.	New York.	New Hampshire.	New Jersey.	North Carolina.	Ohio.	Pennsylvania.	Rhode Island.	South Carolina.	Tennessee.	Texas.	Vermont.	Virginia.	Wisconsin.	Dist. of Columbia.	Canada.	Other Countries.	Total.
Amherst College ...	0	0	0	15	0	0	0	4	0	3	0	1	6	0	113	1	0	0	34	20	0	2	5	9	0	0	0	1	1	0	1	0	0	1	218
Bowdoin College ...	0	0	0	0	0	0	0	0	0	1	0	1	154	0	7	0	0	1	1	18	0	0	1	0	0	0	0	0	0	0	0	0	0	2	186
Brown University...	0	0	0	12	1	0	4	2	1	0	3	0	4	0	65	1	1	0	16	12	0	1	16	9	68	0	1	0	1	1	1	1	0	1	223
Dartmouth College .	0	0	0	3	0	0	1	3	0	1	2	0	11	0	49	1	1	0	4	129	0	2	6	5	1	0	0	0	38	0	0	0	1	0	258
Harvard College	2	0	0	0	0	0	3	0	1	0	3	5	5	10	258	0	3	0	28	18	1	1	5	6	3	5	0	0	3	3	0	2	0	1	365
Middlebury College .	0	0	0	2	0	0	0	0	0	1	0	0	0	0	2	0	0	0	9	2	1	0	3	0	0	0	0	0	52	1	0	0	2	0	75
Norwich University..	1	0	0	0	0	1	0	0	2	0	0	1	11	0	25	2	0	0	8	5	0	1	1	2	1	0	0	0	17	0	3	0	2	0	83
Trinity College	0	0	0	22	2	0	0	0	1	0	0	3	0	2	3	0	0	0	14	4	2	3	3	3	2	0	1	1	2	0	0	2	1	1	72
Tufts College.... ..	0	0	0	0	0	0	0	0	0	0	0	0	8	0	10	0	0	0	3	6	0	0	0	0	1	0	0	0	4	0	0	0	0	0	32
University of Verm't	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	0	0	0	12	1	0	0	1	0	0	0	0	0	79	0	0	0	7	0	103
Waterville College ..	0	0	0	0	0	0	0	0	0	0	0	0	54	0	4	0	0	0	0	1	0	0	0	0	0	0	1	0	1	0	0	0	0	0	63
Wesleyan University	1	0	0	22	0	0	0	0	0	1	0	0	4	0	24	0	0	0	35	9	6	0	1	4	3	0	0	0	4	0	0	0	1	1	116
Williams College ...	0	0	0	15	0	0	0	2	0	0	1	0	0	0	69	2	0	2	79	2	6	0	9	9	0	0	0	0	12	1	0	1	1	12	224
Yale College	1	0	1	125	0	1	3	6	0	1	11	12	5	5	52	2	6	12	117	6	12	0	22	45	2	1	1	1	9	3	3	1	1	5	473
Total	5	0	1	217	3	2	11	18	5	8	20	23	262	17	682	9	11	15	360	233	28	10	73	92	81	6	4	3	223	9	8	7	16	25	2496

TABLE IV.—Proportion of undergraduate students, from the several New England States, in the above named Colleges, according to the population of these states, as given in the census of 1850.

	Population.	Students.	One Student to—		Population.	Students.	One Student to—
New Hampshire,	317,976	233	1,364 inhabitants.	Connecticut,	370,792	217	1,708 inhabitants.
Vermont,	314,120	223	1,408 "	Rhode Island,	147,545	81	1,821 "
Massachusetts,	994,514	682	1,458 "	Maine,	583,169	262	2,225 "

Alabama	5
Arkansas . . .	0
California	1
Connecticut . .	217
Deleware	3
Florida	2
Georgia	11
Illinois	18
Indiana	5
Iowa	8
Kentucky . . .	20
Louisiana . . .	23
Maine	262
Maryland . . .	17
Massachusetts	682
Michigan	9
Missouri	11
Mississippi . . .	15
New York . . .	360
New Hampshire	233
New Jersey . . .	28
North Carolina .	10
Ohio	73
Pennsylvania . .	92
Rhode Island . .	81
South Carolina .	6
Tennessee . . .	4
Texas	3
Vermont	223
Virginia	9
Wisconsin . . .	8
Dist. of Columbia	7
Canada	16
England	3
Scotland	1
Sandwich Islands	6
West Indies . . .	4
South America .	1
Turkey	2
Austria	1
Yucatan	1
Prussia	1
Nova Scotia . . .	1
Greece	1
New Brunswick	3

TABLE II.—Undergraduate and Professional Students in the New England Colleges, as given in their latest published catalogues, with the number of Instructors, and the number of volumes in their Libraries.

NAME OF COLLEGE.	*Undergraduates.*					*Professional.*						Total Undergraduate and Professional.	Instructors.	*Libraries.*			
	Seniors.	Juniors.	Sophomores.	Freshmen.	Total.	Divinity.	Law.	Medicine.	Scientific.	Special Course.	Total.			College.	Students.	Professional and Special.	Total.
Amherst College....	49	50	65	54	218	..	...	...	..	..	...	218	15	11,000	9,000	.....	20,000
Bowdoin College....	35	56	53	42	186	..	...	67	..	..	67	253	14	13,000	11,250	3,400	27,650
Brown University....	31	51	64	74	223	..	...	...	..	..	...	223	10	28,000	6,000	.....	34,000
Dartmouth College ..	59	70	69	60	258	..	...	62	41	..	103	361	20	14,500	17,500	1,600	33,600
Harvard College	93	69	103	100	365	14	111	104	69	..	298	663	44	65,000	13,000	20,100	98,100
Middlebury College ...	13	21	23	18	75	..	...	...	..	..	...	75	8	6,400	.....	.....	6,400
Norwich University.*	..	...	...	...	83	..	...	...	..	..	...	83	4	1,800	.....	.....	1,800
Trinity College.......	19	16	21	15	72	..	...	...	..	..	...	72	11	5,000	6,000	.....	12,000
Tufts College	..	3	7	22	32	..	...	...	..	..	...	32	5	.....	.....	.....	......
University of Vermont	24	22	33	24	103	..	...	27	..	..	27	130	8	11,000	3,000	.....	14,000
Waterville College...	19	20	22	12	63	..	...	..	..	3	3	66	5	5,500	4,500	.....	10,000
Wesleyan University.	18	30	37	31	116	..	...	..	..	..	..	116	8	6,500	6,200	.....	12,700
Williams College....	45	56	66	57	224	..	..	..	..	..	..	224	9	8,000	8,000	.....	16,000
Yale College	97	111	111	154	473	25	26	32	63	..	146	619	45	33,000	25,000	5,000	63,000
Total........	..	...	...	...	2490	..	...	...	..	..	644	3133	..	.....	.....	.....	347,250

* Classes not given.

DEFERRED ARTICLES

We must postpone to our next number several articles and communications intended for this, together with many statistics and notices respecting Educational Movements in different parts of our country. For the sake of introducing the following plans of the edifice recently opened in New York for a Public School, exclusively for Girls, we shall also abridge the space set apart for a notice of Educational Journals and Books. These plans were accompanied by a communication from Professor Elias Loomis, giving a brief history of the Public Schools in the city of New York, which we shall insert hereafter.

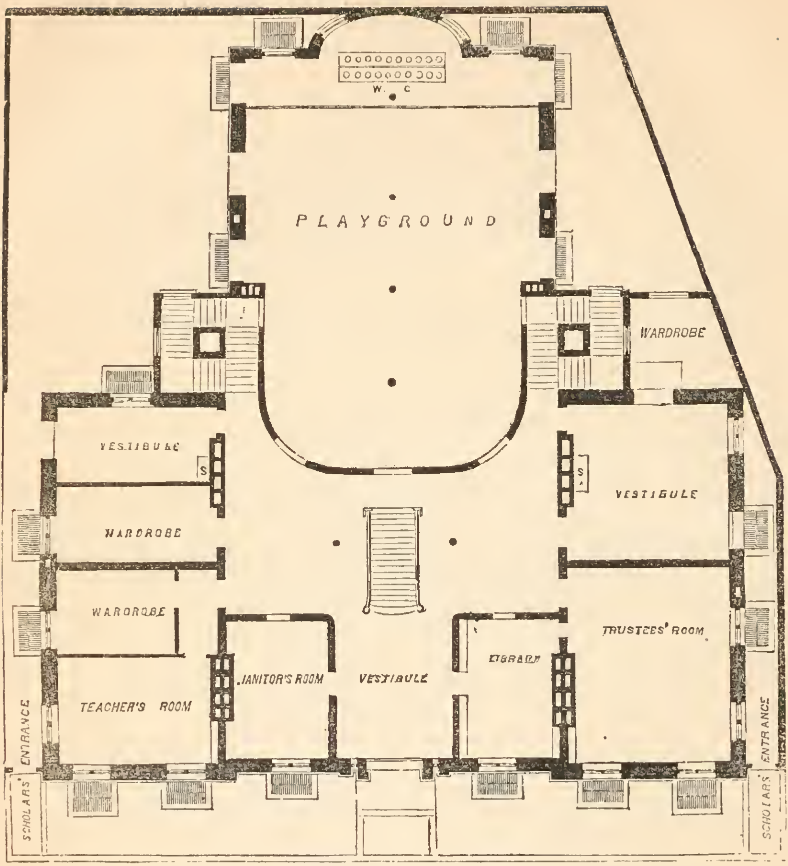
In no one direction is the progress of public instruction more evident than in the provision now made or which is now proposed for the education of girls in a few of the large cities of our country. In many of the large towns of New England even, where it has generally been supposed that there was an equality of school privileges for children of either sex, the girls were expressly and entirely excluded, or they were allowed to attend for a few months in the year, down to a comparatively recent period. Even within the last quarter of a century, the proposition to extend the course of instruction for girls in the city of Boston was opposed and defeated by some of the most influential citizens and friends of public schools. And it is only within fifteen or twenty years that the first Public High School for girls so far as we can now recollect, was established in any part of the country. We shall return to this subject again, and especially to the consideration of the question—whether boys and girls shall be associated together in the same school-room, or even the class-rooms of the same school. The practice of our cities, and the views of our best teachers and educators differ on this point. Prof. Loomis, one of the School Commissioners in the 15th Ward, New York, has forwarded to us the following memorandum of the new Public Grammar School-house for girls.

"Several years since the school officers of the 15th Ward formed the plan of establishing a new school devoted exclusively to the instruction of girls. They designed that the first floor (above the basement) should be devoted to the instruction of the youngest pupils; the second floor to pupils of a middle age; and the upper floor to those pupils who were most advanced. Various causes conspired to delay the execution of this plan; but all these difficulties have been finally surmounted. The building has been completed and was opened for the reception of pupils on the 6th of February, 1851. This building contains on each floor, not only a large room suitable for assembling together all the pupils of each department, but it has also six class-rooms of large size, well lighted and heated, and provided with convenient seats, black-boards, etc. In respect to convenience, neatness, and substantial accommodations, this building is certainly not inferior to any school-building in the city.

After the arrangements for erecting a new school-building in the 15th Ward had made considerable progress, another was commenced in the 18th Ward, also designed exclusively for the reception of girls, and this school went into operation in Sept., 1855. These are the only Ward Schools which do not admit both boys and girls in the same building. It may perhaps be premature to anticipate what will be the verdict of the public, respecting the policy of assigning the two sexes, to separate school-buildings, but it seems not improbable that it may result in our having one set of schools exclusively for boys, and another exclusively for girls."

The building represented in the following plans is one of the best specimens of School Architecture in the country. The arrangements for ventilation are not as perfect as they might have been made. The plan of one large hall and several large class-rooms on the same floor, will admit of the scholars being distributed into several classes, with an assistant for each class-room, or of being kept under the immediate management of the principal, and sent out for recitation to several class-rooms.

Fig. 2. Ground Floor.



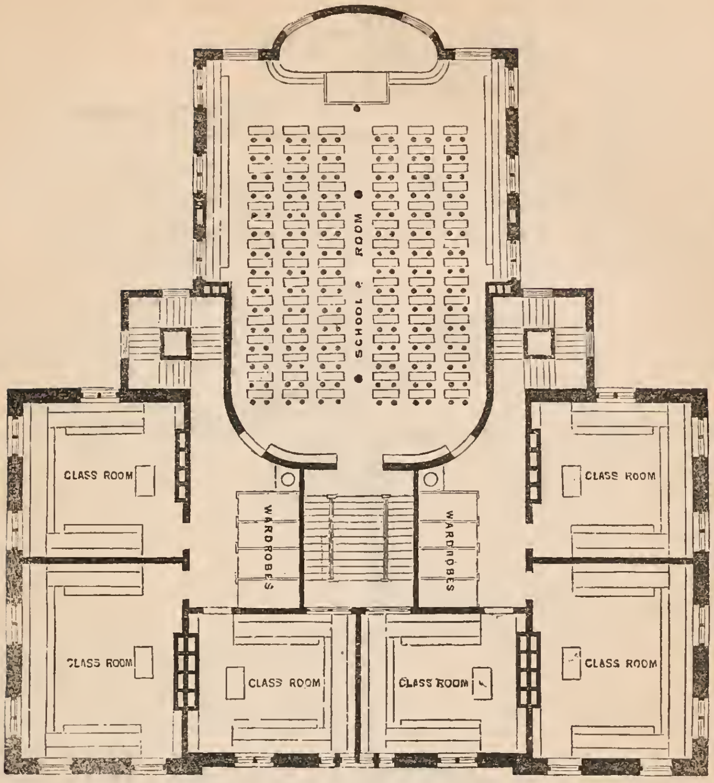
Plans of Grammar School-house, No. 47, New York City.

The elevation represents the new School-house erected in Twelfth Street, between Broadway and University Place, for a Grammar School for girls. The building has a front of 94 feet, and is 100 feet deep and 4 stories high. It is built of brick, the basement having a brown stone front, well finished, with an excellent architectural effect.

Figure No. 2, is the ground floor, chiefly occupied as the play-ground for the scholars, extending under nearly the whole building, and protected from the weather by doors and walls. In fine weather the doors being thrown open, ample room is afforded for exercise.

The lettering in the plan will enable the reader to see at once the arrangement of the rooms. At the right is the Library and the rooms for the meetings of the School Officers of the Ward. At the left are rooms for the Teachers, and the Janitor, and Wardrobes for the use of the pupils. The water-closets are at the rear part of the building.

Fig. 3. First Floor.



There is a cellar under the whole building, where fuel is stored, and the furnaces are placed. Of these there are five, constructed by Messrs. Culver, Simonds & Co., of New York.

The first story is occupied by the Primary Department, and has six class-rooms, as represented in Fig. 3, beside the large room, where the pupils assemble at the opening and close of the school. Four wardrobes are placed on each side of the stairway, where the outer clothing of the scholars are hung during school hours. The stairways on each side of the house, afford an egress into the play-ground.

The second story, Fig. 4, is the same as the first, except that two of the class-rooms are supplied with desks for the upper classes.

The third story, represented in Fig. 5, is the same, with the exception that all the class-rooms are furnished with desks. This department is for the highest grade of scholars, and is similar, in all its arrangements with respect to wardrobes, &c., to the other departments.

The whole house is furnished with the School Furniture of Joseph L. Ross, and is very handsomely and conveniently arranged for the accommodation of the pupils.

The building was erected under the supervision of Thomas R. Jackson, architect; the mason-work being performed by Wm. B. Rhoades, and the carpenter's work by Powers & Schoonmaker.

Fig. 4. Second Floor.

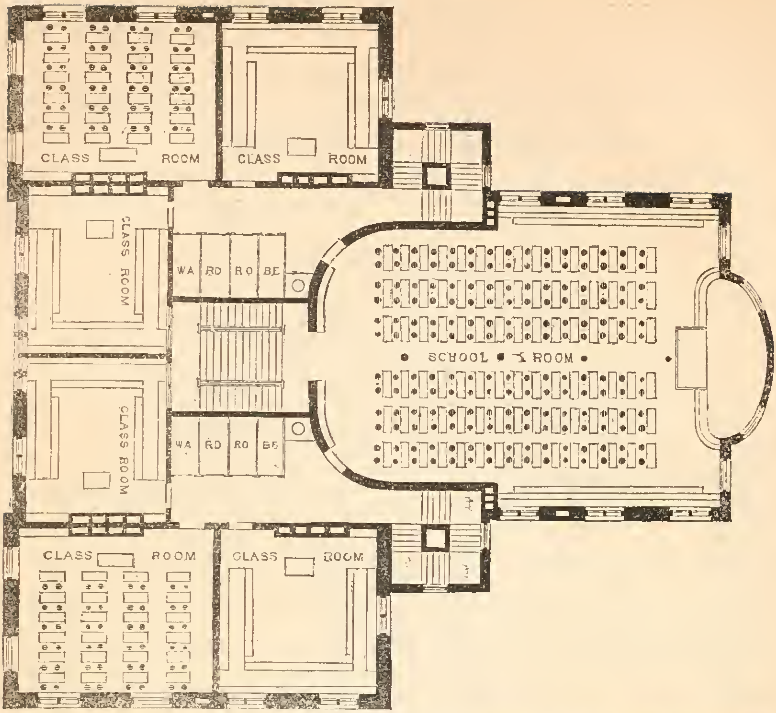
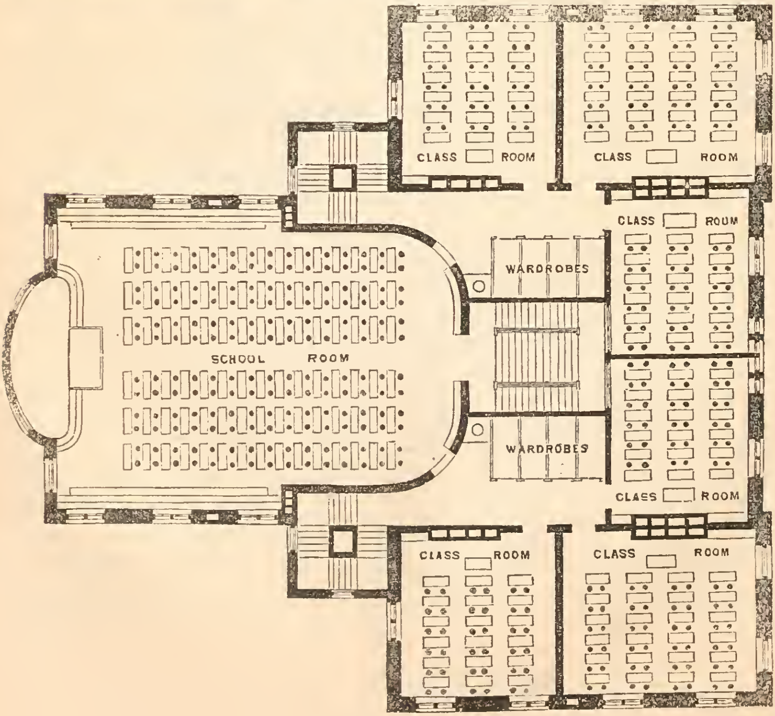


Fig. 5. Third Floor.



XVIII. EDUCATIONAL JOURNALS.

As the Pedagogical Journals of different counties now hold an important place in educational literature, it is proposed to notice from time to time the contents of such of them as may be received at the office of this magazine. Occasionally extracts and translations from their pages will be given in our own.

The following periodicals, of which only the more important articles are mentioned, have recently been received.

GERMAN.

1. DIE HOEHERE BURGERSCHULE; *Organ der Real, hoehere Burger, und Toechter Schulen in Deutschland. Herausgegeben von Dr. Carl Vogel* (Leipsic,) *und Fr. Korner*, (Halle.) CONTENTS. (Vol. IV. Nos. 7 & 8. Oct. and Nov., 1855. Leipsic.) The following are the most interesting articles in the last numbers of this journal. No. 7. On the acquisition of the French Language; By Robolsky. On the Study of the Geography of Plants; By Dr. Rudolph, Berlin. On the distribution among teachers in Real Schools of topics of Instruction; By Clemen. Botanical excursions. Latin in Real schools. No. 8. Report of the Seventh meeting of Instructors in the Real schools of Germany, held at Hanover, Sept., 1855. Remarks on the higher Burgher schools in Pomerania. On Instruction in Drawing, etc.

2. DER DEUSCHE STCHULBOTE; *eine katholisch-padagogische Zeitschrift. Herausgegeben von Dr. Mauritius Moritz.* (Vol. XIV. Nos. 2 and 3. Augsburg. 1855.) CONTENTS. How can a love of truth be awakened in children? What is meant by breaking the will of a pupil? Character and object of Church Music. Of Offences to Children. Six years' school time on work days too little, six years' school time on holidays too much. History of the popular School System of France. Drawing in Popular Schools. Natural History in Popular Schools, etc.

3. SACHSISCHE SCHULZEITUNG. *Redacteur A. Lansky. Dresden.* (Nos. 40, 41, 42, 43. Oct., 1855.) CONTENTS. Catechismal Instruction. Laying the corner-stone of a new Normal School Building at Bautzen, and of a City School Building at Meissen. Book Notices. Intelligence, etc.

4. ALLGEMEINE SCHUL ZEITUNG. *Redactoren, Drs. Wagner und Zimmerman.* (Darmstadt. Oct. & Nov., 1855.) CONTENTS. Report of the meeting of Real School Teachers, Hanover, Sept., 1855. Report of the annual meeting of German Philologists. On Song. Penmanship. Orthography of the German Language. Upon the treatment of Old Testament History in Popular Schools. Institution for Idiots at Gohlis. Reviews and Notices of Educational Books. Intelligence, etc., etc.

5. ZEITSCHRIFT FUR ERZIEHUNG UND UNTERRICHT. *Herausgegeben von P. J. Waegs.* (Vol. IV. Nos. 5 and 6. Cologne and Neutz. 1855.) CONTENTS. School Knowledge—(an inquiry suggested by the new Prussian Regulations.) Elementary Instruction in Arithmetic. On Instruction in Vocal Music. The Organ. Official Intelligence, etc.

FRENCH.

REVUE DE L'INSTRUCTION PUBLIQUE. *Recueil Hebdomadaire.* (Paris, Sept. and Oct., 1855.) CONTENTS. Distribution of Prizes in the departmental Colleges and Lycea of France. Report of the annual sitting of the French Academy. Meetings of Learned Societies. Public Instruction in North America. Necrology. Educational Intelligence. Official announcements of the Ministry of Public Instruction. Book Notices, etc., etc.

ENGLISH.

The Ragged School Union Magazine. (Vol. VII. London. 1855, pp. 244.) This volume contains more than the usual number of important articles, pertaining to the history and management of Ragged Schools in England and Scotland. The passage by Parliament, within the past year, of the Religious Worship Bill, the Youthful Offenders' Bill, and the Education of Out-Door-Paupers' Bill, has had a marked influence upon all plans for the prevention and reformation of juvenile delinquency. A series of five articles on the Scottish Ragged Schools is deserving of special notice.

The English Journal of Education and Educational Expositor. January 1, 1856. Published by Goombridge and Sons. London. This Number commences the Tenth Volume of the New Series of the Journal and the Fourth Volume of the Expositor. 52 pages. The United Journal is edited by T. Tate, and J. Tilleard, assisted by eminent Teachers and Friends of Education. The Editors are widely known and highly esteemed by their success as practical teachers, and by their publications. Both were connected with the Battersea Training School while under the auspices of Sir James Kay Shuttleworth, and afterward with Kneller Hall Training School. Contents, (No. 1.) A New System of Decimal Weights and Measures. Solution of Arithmetical Puzzles. Industrial Schools. On the Study of the Anglo-Saxon Language, [reprinted from the American Journal of Education.] Local Words. Martial with Translations. Arithmetical Notes and Queries. Topographical Nomenclature. Hints for Scripture Lessons. Reading Books. Regnaults on the Latent Heat of Steam. Disciplina Rediviva, on reference to Study of Moral Philosophy. Notes of New Books. [In which Jones' Theory and Practice of Notes of Lesson is reviewed, and Blow's Translation of the Agamemnon of Eschylus.] Intelligence. [Under this head is noticed the annual meeting of the United Association of Schoolmasters for 1855, which now numbers 250 members. Monthly meetings are held in London or its neighborhood for the reading of Papers and giving Model Lessons.]

Papers for the Schoolmaster. 4 vols. Nos. 1–48. Published Monthly by Simpkin, Marshall & Co. London. Price 2½ pence a number. This Periodical is meant to give practical help to masters, mistresses, and pupil-teachers in Elementary Schools. It abounds in "Notes of Lessons," and the details of instruction as pursued in the best National Schools. We shall notice the numbers as they are received.

The Scottish Educational and Literary Journal, issued by the Educational Institute of Scotland—No. 37: Vol. III.; for October, 1855. 32 pages. Free to members of the Institute, and 4*d.* for any single number, or 4*s.* for twelve numbers annually. Edinburgh: Sutherland & Knox. The Institute is an incorporated body, and includes many of the oldest and ablest teachers of Scotland. Contents. Review of Tennyson's Maud; Specimens of Examination Papers, [including Paideutics, or the Theory and Practice of Teaching.] Correspondence. Educational Intelligence, [General Meeting of the Trustees of the Burgh and Parochial Schoolmasters' Widows' Fund. The Fund amounts to £76,000.]

AMERICAN.

We must omit all notices of the American Periodicals which have been sent to our address. We will introduce them in our next number with a History of Educational Journalism in the United States—having, we believe, got nearly complete sets of all the Educational Periodicals which have been published in this country.

XIX. BOOKS AND PAMPHLETS RELATING TO EDUCATION.

HACHETTE'S EDUCATIONAL DEPOSITORY, PARIS. One of the largest establishments in the world devoted to the publication and sale of Educational Books and apparatus is that of Messrs. L. HACHETTE & Co., No. 14 Rue Pierre Sarazzin, near the School of Medicine, in Paris. There is scarcely any thing wanted in a school, from the crayon or the infant school pictures up to the most learned books for professional schools, which may not be here obtained.

The mere catalogue of stock, lately issued by this house, numbers nearly two hundred pages, and is eminently suggestive of educational conveniences and necessities. Most of the books which they offer are their own publications, and the apparatus is generally made under their own supervision. The official approval of the Council of Public Instruction in France having been given to a large number of works, has secured for them an immense sale; which, on the other hand, has enabled the price to be fixed at a very low figure.

The catalogue commences with books, tablets, pictures and registers, intended for Infant Schools. Next follow the books which are employed or have reference to primary instruction, including the laws which concern, and the books needed for the education of instructors in schools of this grade, as well as text-books for primary scholars. Lists of special works for professional education then follow. The department of Superior education succeeds, with lists of works on Legislation, Statistics and Pedagogics, Programmes and Manuals for various examinations, Text-Books in French on every branch of science, choice editions of the Greek and Latin Classics, selected writings of modern authors in different languages, &c.

The catalogue of apparatus is not less complete than that of books. Stationery conveniently assorted, colors, boxes of mathematical instruments, linear measures and those of capacity, instruments for surveying and leveling, geometrical solids and reliefs, apparatus for the complete illustration of the laws of mechanics and physics; retorts, lamps, &c., for chemical experiments; collections of minerals, crystals, fossils, chemicals, plants, zoological preparations, &c., are provided of a superior quality and at low prices.

Owing to the difference in language the publications of Messrs. Hachette & Co. will meet with but a limited sale in this country; but their apparatus, and especially their collections in Natural History are deserving of importation on a very large scale. From a personal examination of what they offer to the public, we confidently recommend those who are purchasing for educational establishments in this land to make selections from this well chosen and well prepared assortment. We likewise call the attention of the educational Book Trade to the same full catalogue.

MA BIBLIOTHIQUE FRANCAISE. (Paris: Hector Bossange et Fils. New York: 153 Broadway. 16mo., pp. 480. 1855.) The rare biographical attainments of Mons. Bossange are well known to the Librarians and Scholars of this country. Although with characteristic modesty he says of the volume before us, "It is not a book, it is not even a catalogue, it is simply a compendium of information for the use of my friends in America," we do not hesitate to express the opinion that within the same compass so much valuable detail in regard to the publications and writers of France, can no where else be found.

The value of Mr. Bossange's publication is by no means limited to the well-chosen list of books which he presents. His biographical and bibliographical Notes display a wide range of research, and what is not less important great judiciousness in the selection and arrangement of material.

LEARNING AND WORKING. Six Lectures delivered in Willis's Rooms, London in June and July 1854, in exposition of the Workingmen's College, by F. D. Maurice, M. A., Chaplain of Lincoln's Inn, Cambridge. Macmillan & Co., 1855, 350 pages.

THE SPIRIT AND SCOPE OF EDUCATION IN PROMOTING THE WELL-BEING OF SOCIETY. From the German of The Very Rev. J. A. Stapf, D. D., Prof. of Moral Theology by Robert Gordon. Charles Dolman. London: 376 pages.

GERMAN LETTERS ON ENGLISH EDUCATION, by Dr. L. Wiese, Prof. in Royal Foundation School at Jorchimsthal, 1854. London: Longman, 209 pages.

THE PHILOSOPHY OF EDUCATION: or The Principles and Practice of Teaching, in five parts, by T. Tate, F. R. A. S. London: Longman, Brown, Green, and Longmans, Paternoster Row. 1854. 162 pages.

SCHOOL ECONOMY. A Practical Book on the best modes of Establishing and Teaching schools, and of making them thoroughly useful to the Working Classes by means of Moral and Industrial Training; by Jellinger Symons, A. B. London: John W. Parker and Son, West Strand. 1854. 188 pages.

MANUAL OF METHOD; for the use of Teachers in Elementary Schools; by W. F. Richards, Head Master of the National Society's Central School, Westminster. London: National Society's Depository, Sanctuary, Westminster. 1854. 141 pages.

A HAND BOOK TO THE BOROUGH ROAD SCHOOLS. Explanatory of the meth ods of Instruction adopted by the British and Foreign School Society. London: Printed for the Society and sold at the Depository, Borough Road. 1854. 148 pages.

SOUGHT AND SAVED. A prize Essay on Ragged Schools, and Kindred Institutions; by George James Hall, M. A., London, Ragged School Union. 1. Exeter Hall. 1854. 256 pages.

REPORT OF TWENTY-ONE YEAR'S EXPERIENCE OF THE DICK BEQUEST, for elevating the character and position of the Parochial Schools and Schoolmasters in the Counties of Aberdeen, Banff, and Moray, embracing an exposition of the design and operation of the parish school. Presented to the Trustees by Allan Menzies. William Blackwood and sons; Edinburg and London: 1854. 478 pages.

INTRODUCTORY LECTURES, Delivered at Queen's College for Young Ladies, London. London: John W. Parker, West Stand. 352 pages.

THE UNIVERSITIES OF SCOTLAND, PAST, PRESENT AND POSSIBLE, with an appendix of Documents relating to the Higher Instruction; by James Lorimer, Jr., Esq. Edinburg; W. P. Kenedy. 1854. 152 pages.

SECOND REPORT OF THE DEPARTMENT OF SCIENCE AND ART. Presented to both Houses of Parliament. London: 1855. 258 pages.

THE TWENTIETH REPORT OF THE COMMISSIONERS OF NATIONAL EDUCATION IN IRELAND for the year 1853. Presented to both Houses of Parliament. Dublin: 1855. 790 pages.

THE TWENTY-FIRST REPORT OF THE COMMISSIONERS OF NATIONAL EDUCATION IN IRELAND for the year 1854. Presented to both Houses of Parliament, Dublin. 1855. 936 pages.

PRACTICAL WORKING OF THE SYSTEM OF NATIONAL EDUCATION IN IRELAND: Report from the Select Committee of the House of Lords, together with the Minutes of Evidence, Appendix and Index, 2 vol., folio, 1652 pages.

A REVIEW AND COMPENDIUM OF THE MINUTES OF EVIDENCE taken before the Select Committee of the House of Lords, on the Practical Working of the System of National Education in Ireland, &c.; edited by an Advocate of Lord Stanley's Plan. London: Goombridge and Sons. 644 pages.

MINUTES OF THE COMMITTEE OF PRIVY COUNCIL ON EDUCATION, Correspondence, Statistics, and Reports of Instructors for 1854-5. London: 1855. 966 pages.

ERRATA.

In a few impressions the following errors and omissions have been noticed: On page 334 (11th line from the bottom,) *cents* should read *dollars;* and on page 348, (17th line from the top,) 41,400, should read 414,000, and in the next line, $280.00 should read $28,000. On page 370 a paragraph explanatory of Table V., and the proper heading of the Table (VI.) devoted to Public Libraries in Europe, which is taken, by permission, from Burritt's Statistics of the Nations, are omitted.

American Journal of Education.

The American Journal of Education, commenced by the undersigned in May, 1855, and united, after much of the copy of Number One was in type, with the *College Review and Educational Journal*, projected by the Rev. Absalom Peters, D.D , will hereafter be published by the undersigned on his original plan; the agreement for the joint editorship and proprietorship of the *Journal and Review* having been dissolved* by mutual consent and for mutual convenience.

The *American Journal of Education* for 1856 will consist of Six Numbers, of which Numbers I. and II. are already printed under the title of the *American Journal of Education and College Review*. Number III. will be published on or before the 1st of March, and thereafter a number will be issued regularly on the first of each alternate month.

The five numbers (including a Supplementary Number, devoted to a Review of the Progress and Condition of Education in different countries) to be issued in 1856 will contain, on an average, each 160 pages, and the whole will constitute a volume of at least 1,000 pages, or two volumes, each of at least 500 pages.

Each number will be embellished with an engraved portrait of an eminent teacher or benefactor of education, or with one or more wood-cuts of buildings, apparatus, or other preparations for educational purposes.

The subscription price is Three Dollars for the current year (1856), commencing with Number One, and payable in advance, or on the reception of the numbers already published at the time of making the subscription.

It is the intention of the editor to labor faithfully to make the *American Journal of Education* the repository of the past history and present condition of educational systems, institutions, and agencies in every civilized country, and the medium of the current intelligence and discussion on these great subjects between the friends of improvement in every part of our country, whether interested directly in public or private schools, or in the higher or elementary branches of knowledge.

Are you disposed, on the strength of this pledge, and of the numbers already issued—of which a specimen has been sent to you, or will be, on application to the undersigned—to become a subscriber for one year?

All communications relating to the *American Journal of Education* may be addressed,

HENRY BARNARD,
Hartford, Conn.

December 15th, 1855.

⁂ Since the preparation of the Second Number of the *American Journal of Education and College Review*, the partnership of the undersigned, as joint editors and proprietors, has been dissolved by mutual agreement and for mutual convenience; leaving each party at liberty to continue the publication of an educational periodical, of which the numbers already published shall constitute a part.

ABSALOM PETERS.
HENRY BARNARD.

New York, *Dec.* 13, 1855.

THE

American Journal of Education

AND

COLLEGE REVIEW.

No. I.—AUGUST, 1855.

In the great educational movement now going forward on this Continent, and especially throughout all the states in which the English language prevails, there has seemed for many years to the undersigned to exist, if not a demand, at least the want, not only of an American association of the friends of universal education, but of a series of publications, which should, on the one hand, embody the matured views and varied experience of wise statesmen, educators and teachers in perfecting the organization, administration, instruction and discipline of schools, of every grade, through a succession of years, under widely varying circumstances of government, society and religion; and on the other, should harmonize conflicting views, expose real deficiencies, excite to prudent and efficient action, and serve as a medium of free and frequent communication between the friends of education, in every portion of the great field.

In furtherance of these objects, a *Plan of Central Agency for the increase and diffusion* of knowledge on this subject was submitted to the American Association for the Advancement of Education, at its annual meeting in Washington in 1854. One feature of this plan was the publication of a Journal and Library of Education; the former to be issued in monthly or quarterly numbers, to embrace the current educational intelligence of the world, and the discussion of topics of immediate and pressing interest;—the latter to consist of a series of independent treatises, each devoted to the development of an important subject, or department, and embodying the reflections and experience of many minds, and the working and results of many institutions; and the whole, when complete, to constitute an Encyclopedia of Education. The plan was referred to a committee—considered and approved; and the Standing Committee were authorized to carry it into execution as far and as fast as the funds of the Association should admit. In the absence of any funds belonging to the Association, and of any pledge of pecuniary coöperation, on the part of individuals, the Committee have not taken any steps to establish a central agency for the advancement of the objects for which the association was instituted, or felt authorized to provide for any publication beyond the proceedings of its last annual meeting. Under these circumstances, the undersigned has undertaken on his own responsibility, to carry out the original plan submitted by him, so far as relates to the publication both of the Journal, and the Library—relying on the annual subscription of individuals in different states, and interested in different allotments of the great field, who desire to be posted up in the current intelligence and discussion of schools and education, to meet the current expenses of the former; and on special contributions in aid of the latter, by persons or institutions interested in particular treatises, as their preparation shall be from time to time advanced and announced.

The First Number of the American Journal of Education will be issued in August, on terms which will be set forth by the publisher. As it will be devoted exclusively to the proceedings of the American Association for 1854, it will not present the usual variety and arrangement of topics, which will characterize the succeeding numbers.

The first treatise or volume of the Library of Education will be published in the course of 1856, under the following title, "NATIONAL EDUCATION IN THE UNITED STATES; or *Contributions to the History and Improvement of Common or Public Schools, and other means of Popular Education in the several States*," on terms which will be hereafter announced.

HARTFORD, CONN., May, 1855.

HENRY BARNARD.

P. S. After much of the copy for this Number of the American Journal of Education was in type, a conference was held with the Rev. Absalom Peters, D. D., in reference to the plan of an Educational Journal contemplated by him under the title of The American College Review and Educational Journal, which has led to the combination of our respective plans, and a joint editorship of THE AMERICAN JOURNAL OF EDUCATION AND COLLEGE REVIEW.

NOTE TO NEW EDITION.—The agreement for the joint proprietorship and editorship of the American Journal of Education and College Review, having been dissolved by mutual consent and for mutual convenience, the undersigned has resumed the publication of the American Journal of Education on his original plan. A portion of the material intended for the first volume of the American Library of Education, will be published in the American Journal of Education.

DR. PETERS will continue the publication of an educational periodical to which he has given the joint name. H. B.

HARTFORD, January 7, 1856.

AMERICAN LIBRARY OF EDUCATION.

1. A Catalogue of the best publications on the organization, instruction and discipline of schools, of every grade, and on the principles of education, in the English, French, and German languages.
2. A History of Education, ancient and modern.
3. An Account of Elementary Instruction in Europe, based on the reports of Bache, Stowe, Mann, and others.
4. National Education in the United States; or contributions to the history and improvement of common or public schools, and other institutions, means and agencies of popular education in the several States (B.)
5. School Architecture; or the principles of construction, ventilation, warming, acoustics, seating, &c., applied to school rooms, lecture halls, and class rooms, with illustrations.
6. Normal Schools, and other institutions, means and agencies for the professional training and improvement of teachers.
7. System of Public Education for large cities and villages, with an account of the schools and other means of popular education and recreation in the principal cities of Europe and in this country.
8. System of Popular Education for sparsedly populated districts with an account of the schools in Norway and the agricultural portions of other countries.
9. Schools of Agriculture, and other means of advancing agricultural improvement.
10. Schools of Science applied to the mechanic arts, civil engineering, &c.
11. Schools of Trade, Navigation, Commerce, &c.
12. Female Education, with an account of the best seminaries for females in this country and in Europe.
13. Institutions for Orphans.
14. Schools of Industry, or institutions for truant, idle or neglected children, before they have been convicted of crime.
15. Reform Schools, or institutions for young criminals.
16. Houses of Refuge, for adult criminals.
17. Secondary Education, including 1. institutions preparatory to college, and 2. institutions preparatory to special schools of agriculture, engineering, trade, navigation, &c.
18. Colleges and Universities.
19. Schools of Theology, Law, and Medicine.
20. Military and Naval Schools.
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22. Libraries, with hints for the purchase, arrangement, catalogueing, drawing and preservation of books, especially in libraries designed for popular use.
23. Institutions for the Deaf and Dumb, Blind, and Idiots.
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25. Public Museums and Galleries.
26. Public Gardens, and other sources of popular recreation.
27. Educational Tracts, or a series of short essays on topics of immediate practical importance to teachers and school officers.
28. Educational Biography, or the lives of distinguished educators and teachers.
29. Educational Benefactors, or an account of the founders and benefactors of educational and scientific institutions.
30. Self-Education; or hints for self-formation, with examples of the pursuit of knowledge under difficulties.
31. Home Education; with illustrations drawn from the Family Training of different countries.
32. Educational Nomenclature and Index; or an explanation of words and terms used in describing the systems and institutions of education in different countries, with reference to the books where the subjects are discussed and treated of.

The Series, when complete, will constitute an Encyclopedia of Education.

B.

NATIONAL EDUCATION IN THE UNITED STATES; or Contributions to the History and Improvement of Common or Public Schools, and other means of Popular Education.

I. Survey of the principal agencies which determine the education of a people with an explanation of the American nomenclature of schools and education.

II. A brief sketch of the action of the General Government in the matter of education and schools, *i. e.*, Appropriation of Public Lands for educational purposes in the several States, Military Academy at West Point, Naval School at Annapolis, Education of the Indians.

III. Legislation of each State respecting education, with special reference to the organization, administration, and support of common or public schools, with an outline of the system in operation in 1854, or 1855, in each State.

IV. Condition of education in each State, according to the Census returns of 1850, and other reliable sources of information, arranged under the following heads:

1. Elementary or Primary Education.
2. Academic or Secondary Education.
3. Collegiate or Superior Education, including such institutions as embrace a course of study usually made the condition of granting the degree of Bachelor of Arts.
4. Professional or Special Education.
   a. Theology.
   b. Law.
   c. Medicine.
   d. Engineering.
   e. Agriculture.
   f. Mechanics.
   g. Commerce.
   h. Teaching.
   i. Fine Arts.
   j. Deaf-mutes.
   k. Blind.
   l. Idiots.
5. Supplementary Education.
   a. Evening Schools.
   b. Lyceums.
   c. Courses of Lectures.
   d. Libraries of Circulation.
   e. Libraries of Reference.
   f. Adult Schools.
   g. Mechanic Societies
6. Reformatory Schools.
7. Orphan Houses.
8. Societies for the encouragement and advancement of science, the arts and education.

Under each of the above classes of educational institutions and agencies, a distinction will be made, as far as practicable, between public and private, incorporated and individual, general and sectarian, for male and female, city and country. Under each State an outline of the system and a summary of the statistics of education will be given for all cities having more than 10,000 inhabitants.

V. Educational funds—State, Municipal and Institutional; amount realized from tax on property, from permanent funds, and from tuition paid by scholars.

VI. Educational buildings; remarks on their general condition, with illustrations of a few of the best specimens of each class of buildings.

VII. Catalogue of Documents relating to the educational systems and institutions in each State—with an Index referring to the most important topics presented or discussed in each document.

VIII. Statistical Tables, with a summary of those educational agencies, such as the press, ecclesiastical organizations, facilities of locomotion, etc., which determine the direction, and defeat or advance the education given in schools.

IX. A brief statement of the educational systems and statistics of the most civilized countries of Europe.

[*The above work is in preparation by Henry Barnard, of Connecticut, who has visited nearly every State to collect documents, and instituted personal observations and inquiries respecting the several points presented in the above plan.*]

H. COWPERTHWAIT & CO., PHILADELPHIA.

BARNARD'S EDUCATION IN EUROPE

NATIONAL EDUCATION IN EUROPE; BEING AN ACCOUNT OF THE ORGANIZATION, ADMINISTRATION, INSTRUCTION, AND DISCIPLINE OF SCHOOLS OF DIFFERENT GRADES AND KINDS IN THE PRINCIPAL STATES.

BY HENRY BARNARD, LL.D.

SECOND EDITION. PRICE $3.00.

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It forms an Octavo Volume of 900 pages, in small type, and embraces not only the results of Mr. Barnard's observations in schools of different grades, and study of official documents during two visits to Europe, but the substance of the elaborate and valuable reports of Professor Calvin E. Stowe, D. D., to the Legislature of Ohio, in 1837; of President Alexander Dallas Bache, L.L. D., to the Trustees of the Girard College of Orphans in Philadelphia, in 1839; of Honorable Horace Mann, LL. D., to the Massachusetts Board of Education in 1846; and of Joseph Kay, Esq., of the University of Oxford, in 1850, on the subjects treated of.

Of this work the Westminster Review, for October, in 1854, says.

"With a view to draw such general conclusions as might be available for the improvement of educational plans in his own country, he has collected and arranged more valuable information and statistics than can be found in any one volume in the English language. Under the most varied circumstances of government, society, and religion, has the great philanthropic experiment of popular education been tried; and in each case we may be sure that some valuable principle has been recognized, and some important inductions drawn from facts forced upon the national attention. But although we have had some careful reports on the state of education in France, Prussia, and more recently in our own country, this is the first volume, we believe, which groups under one view the varied experiences of nearly all civilized countries."

Hon. John D. Philbrick, Superintendent of Common Schools in Connecticut, says:

"We shall not here enlarge upon its merits, but only advise every teacher, professional man, school officer, literary man, and in fine, every one who wishes to be *posted up* on the great subject of popular education, to lose no time in securing the possession of this volume."

Similar testimony has been borne by many of the best Educational Periodicals, School Officers, and Teachers in the country.

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CONTENTS

OF

EDUCATION IN EUROPE.

BY HENRY BARNARD.

GERMANY.

Page.

- History of Education, 17
  - Parochial Schools, 18
  - Public Schools, 19
  - Martin Luther, 19
  - Augustus Herrman Franke, 21
  - Orphan-House at Halle, 21
  - Basedow, 25
  - Pestalozzi, 25
  - Zeller, 29
  - Centennial Birth-day of Pestalozzi, 30
- Progress of Normal Schools, 31
- General features of the School Systems, 32
- Table. Normal Schools in Germany in 1848, 34
- Results of the Normal School System, 35
  - Testimony of Professor Stowe, 35
  - "   President Bache, 39
  - "   Mr. Mann, 39
  - "   Rev. Dr. Ryerson, 45
  - "   Professor Stephens, 46
- Course of Instruction in Primary Schools, 49
  - For children between ages of six and eight, 50
    - Conversation—Lesson on Objects, 51
    - Elements of Reading, 51
    - "   Writing, 52
    - "   Numbers—Arithmetic, 52
  - For children between ages of eight and ten, 52
    - Exercises in Reading, 52
    - Exercises in Writing, 53
    - Moral and Religious Instruction, 53
    - Language or Grammar, 54
    - Number or Arithmetic, 56
    - Doctrine of Space and Form, 55
    - Singing by Note, 55
  - For children from ten to twelve, 55
    - Exercises in Reading and Elocution, 55
    - Writing introductory to Drawing, 55
    - Bible History, 55
    - Language and Grammar, 55
    - Knowledge of Nature, 56
    - Arithmetic, 57
    - Geometry—Doctrine of Magnitudes, 57
    - Singing and Science of Vocal Music, 57
  - Children from twelve to fourteen, 57
    - Religious Instruction, 58
    - Knowledge of Nature and Mankind, 58
    - Language or Exercises in Composition, 59
    - Application of Arithmetic to Business, 59
    - Elements of Drawing, 59
    - Exercises in Singing and science of Music, 60
- Extracts from Report of Hon. H. Mann, 60
  - Classification, 60
  - Methods of teaching young children, 60
  - Arithmetic and Mathematics, 63
  - Grammar and Composition, 64
  - Writing and Drawing, 66
  - Geography, 68
  - Exercises in Thinking, 70
  - Knowledge of Nature, 71
  - Knowledge of the World, and Society, 72
  - Bible History and Bible Knowledge, 73
  - Music, 74
- **Testimony of Joseph Kay, Esq., as to the practical working of the Prim. Sch. of Germany, 74**

PRUSSIA.

Page.

- History of Primary Instruction, 81
- Outline of System, 86
- Statistics of Primary Education in 1848, 88
- Remarks on Progress of Primary Schools, 89
- Subjects and Methods of Instruction, 91
  - Elementary Schools, 91
  - Burgher Schools, 92
  - Higher Town Schools, 92
  - Text-books, 93
  - School Examinations, 93
- Results in practical working of System according to Mr. Kay, 94
  - Education of young children, universal, 94
  - School Attendance, 95
  - Children employed in factories, 96
  - Voluntary System prior to 1819, 97
  - Schools where the people are of one faith, 98
  - "   "   "   "   "   different do. 98
  - Mixed Schools, 99
  - Duties of School Committee, 99
  - Schools in large towns and cities, 101
  - Advantages of large schools, 102
  - School-houses, 103
  - Superior Primary Schools, 105
  - Real Schools, Gymnasia, Endowed Schools, 105
  - Large landed Proprietors, 106
  - Lancasterian Method, 106
  - Paid Monitors or Assistants, 107
  - Text-books, 109
  - Suggestive Character of the Methods, 110
  - Interest of Children in their Studies, 111
- Specimens of Schools of different grades, from Dr. Bache's Report, 112
  - Burgher School at Halle, 112
  - Military Orphan-House at Annaburg, 115
  - Public Schools of Berlin, 118
  - Elementary Schools, 118
  - Burgher Schools, 123
  - Dorothean Higher City School of Berlin, 124
  - Model School of Teachers' Seminary, 127
  - Seminary School at Weissenfels, 123
  - Higher Burgher School of Potsdam, 135
- Secondary Instruction in Prussia, 139
  - Admission of pupils, 139
  - Subjects of Instruction, 140
  - Distribution of Teachers, 141
  - Number of hours of Recitation, 141
  - Plan of Studies, 142
  - Study out of School Hours, 143
  - Duration of courses, 143
  - Examination for University, 114
  - Supposed defects of Teachers, 144
  - Physical Education, 144
  - Religious Education, 145
  - Discipline, 145
  - Motives to Study, 145
  - Regulations for Final Examination, 146
- Frederick William Gymnasium of Berlin, 148
- Royal Real School, 152
- City Trade School, 155
- Institute of Arts, 159
- Legal Provision respecting Teachers, 165
- Testimony of Mr. Kay, 169

Page.
Social Condition, ... 170
Educational Advantages, ... 172
Schools Preparatory to Normal Schools, ... 171
Examination on entering, ... 172
" for Diploma as Teachers, ... 173
Teachers are Public Officers, ... 174
Salaries fixed, and payment certain, ... 176
Female Teachers, ... 178
Teachers' Conferences, ... 179
Pensions to old and invalid teachers, ... 181
Widows and Orphans of deceased teachers, 182
Educational Periodicals, ... 182
Teachers' Seminary, or Normal Colleges, .. 183
Conditions and Examinations for entering, . 185
Intellectual Training of a Seminary, ... 186
Industrial Training, ... 187
Diploma, ... 188
Location and Number of Normal Schools in 1846, ... 190
Small Normal Schools of Lastadie, ... 191
Small Normal School of Pyritz, ... 194
Normal School of Potsdam, ... 197
Normal Schools at Bruhl, ... 207
Normal Seminary in Eisleben, ... 218
Seminary for Teachers at Weissenfels, ... 219
Seminary for Teachers of City, at Berlin, ... 233
Normal Schools for Female Teachers, ... 235
Seminary at Marienweider, ... 236
Diaconissen Anstalt at Kaiserswerth, ... 236
Prussian Schools, a few years ago, ... 241
School Counselor Dinter, ... 242
Journal of an Institute, or Conference of Teachers, ... 243
School Counselor Bernhardt, ... 243
Bernard Overberg, ... 245
C. B. Zeller—the Influence of Example, ... 253
Self-examination—by Beckendorf, ... 254

SAXONY.

System of Primary Instruction, ... 257
Institution for Superannuated Teachers, ... 259
Statistics of Schools, ... 260
Royal Seminary for Teachers at Dresden, ... 261
Examination for Teachers' Diplomas, ... 262
Protection of Teachers' Rights, ... 265
Compulsory Attendance at School, ... 266
School Buildings, ... 267
Primary Schools of Dresden, ... 268
Saxon Sunday Schools, ... 268
Plan of Sunday School at Dresden, ... 269
Public Examination of the Schools, ... 271
Fletcher Normal Seminary at Dresden, ... 272
Burgher School at Leipsic, ... 273
Plan of Instruction, ... 275
Public Schools of Leipsic and Dresden, ... 278
Secondary Education in Saxony, ... 279
Blochmann-Vitzhum Gymnasium at Dresden, 280
School of Mines at Freyberg, ... 289

BADEN.

School Authorities, ... 293
System of Primary Schools, ... 293
Educational Statistics of Baden, ... 293
" School Attendance, ... 299
" Internal Organization, ... 299
" Plan of Instruction, ... 292
Evening Classes, ... 292
Sunday Classes, ... 297
Industrial Instruction, ... 297
Education of Children employed in Factories, 297
Teachers' Conferences, ... 298
Normal Seminary at Carlsruhe, ... 299

WIRTEMBERG.

Educational Statistics, ... 301
System of Primary Schools, ... 301
Denzel's Introduction to the Art of Teaching, 303
Normal Seminary at Esslingen, ... 310
Normal Seminary at Nurtingen, ... 306

Page.
Subject of Instruction in the Normal Schools, 305
Institute of Agriculture at Hohenheim, ... 307

HESSE CASSEL AND NASSAU.

Educational Statistics, ... 312
Normal Seminary at Schluchtern, ... 312

BAVARIA.

System of Primary Schools, ... 313
Normal Seminary at Bamburg, ... 314
Plan of Seminary by Jacobi, ... 314
Educational Statistics, ... 315
Mr. Kay's Estimate of Public Schools, ... 316
Dr. Grazer's System of Instruction, ... 319
Common School at Bayreuth, ... 320

AUSTRIA.

System of Public Instruction, ... 325
" Popular Schools, ... 325
" Upper Schools, ... 326
" Commercial Academies, ... 326
" High Schools for Girls, ... 326
" Gymnasia, ... 326
System of Inspection, ... 329
Regulations respecting Teachers, ... 331
System of Normal Schools, ... 333
Polytechnic Institute at Vienna, ... 335
Statistics of Elementary Schools, ... 338
" Secondary Schools, ... 339
" Superior, ... 339
" Academies of Science, ... 340

SWITZERLAND.

Outline of Educational Institutions, ... 341
Reconcilement of Difference of Relig. Belief, 341
School Attendance made Compulsory, ... 342
Education of Teachers, ... 344
Manual Labor in Normal Schools, ... 344
Vehrli's Opinions on the Habits of Teachers, 345
Course of Instruction in Primary Schools, ... 346
Religious Exercises, ... 347
Local Inspection of Schools, ... 347
Results of the Education of the People, ... 348
Education of Girls in Catholic Seminaries, .. 348
Condition of the Peasantry, ... 349
Pauperism and Ignorance, ... 350
Educational Establishment at Hofwyl, ... 351
Emanuel Fellenberg, ... 351
Fellenberg's Principles of Education, ... 354
" Subjects of Study, ... 354
" Moral Education, ... 355
" Intellectual Education, ... 355
" Physical Education, ... 356
Normal Course for Teachers at Hofywl, ... 357
Berne Cantonal Society for Teachers, ... 364
Normal School at Kruitzlingen-Thurgova, .. 367
Educational Views of Vehrli, ... 369
Programme—Course of Study, ... 372
Normal School at Kussnacht, Zurich, ... 373
Programme of Studies, ... 376
Norm. School at Lausanne—Cant. of Vaud., 378
Normal School at Lucerne, ... 380

FRANCE.

History of Popular Education, ... 381
Ordinances of National Convention, ... 381
Decrees of Napoleon, ... 381
Law of the Government of Louis Phillippe, . 382
Report of Victor Cousin, ... 382
Speech of M. Guizot, ... 387
Degrees of Primary Instruction, ... 387
Local and State Inspection, ... 388
Professional Education of Teachers, ... 388
Mission of the Teacher, ... [illegible]
Society of Elementary Instruction, ... 390
Outline of system of Public Instruct. in 1850, 391
University of France, ... 391

Page.
Council of Public Instruction, ... 391
Academies, ... 391
Royal Colleges, ... 392
System of Pub. Competion for Professorship, 392
System of Primary Instruction, ... 393
School Attendance, ... 393
Local Management, ... 393
Examination of Teachers, ... 393
Departmental Inspection, ... 394
Education of Teachers, ... 394
Course of Instruction, ... 395
Teachers' Associations, ... 395
Fund for Relief of Aged Teachers, ... 395
Governmental Prizes to Masters, ... 395
Expenditures for School-houses, ... 395
Schools embraced in the University of France, 396
Primary Education in the Communes, ... 397
Number of Primary Sch. belong. to each Sect, 397
Attendance in Primary Schools, ... 398
Classes for Adults, and Apprentices, ... 899
Statistics of Normal Schools, ... 399
State of Secondary Education, ... 400
Primary Education in department of Tarn, .. 401
Institutions for Special Instruction, ... 405
  Industrial Instruction, ... 406
History of Normal Schools in France, ... 413
  Abbe de Lasalle in 1681, ... 413
  Normal School of Paris, 1794, ... 413
  Normal Class of Strasbourg in 1811, ... 414
  Report of Cousin in 1832, ... 415
  Plan framed by Guizot in 1833, ... 421
  Number of schools in 1849, ... 424
Conferences of Teachers, ... 425
Libraries of Teachers, ... 427
Pecuniary condition of Teachers, ... 430
Institute of Christian Brothers, ... 435
  Life of John Baptist de Lasalle, ... 435
  Regulations of Institute, ... 442
Primary Normal School at Versailles, ... 447
  " " " " Dijon, ... 449
Secondary Normal School of Paris, ... 451
Polytechnic School of France, ... 457
  School of Engineers, ... 462
  School of Roads and Bridges, ... 462
  School of Mines, ... 462
Central School of Arts and Manufactures, ... 453
Agricultural Education in France, ... 467
  Model Farm Schools, ... 468
  Regional Schools of Agriculture, ... 469
  National Agronomic Institute, ... 470
  Veterinary Schools, ... 471
  Reform Farm Schools, ... 474
Agricultural School at Grignon, ... 475
  " " " Grand Jouan, ... 485
Farm Schools for Juvenile Delinquents, ... 487
  " " in Switzerland, ... 487
  " " Wirtemberg, ... 489
  " " Hamburgh, ... 490
  " " France, ... 492
  " " Belgium, ... 496
  " " England, ... 497
Conference respecting Reform schools 497
  Remarks of D. M. Hill, ... 498
    Rev. W. E. Osborn, Bath Prison, ... 502
    Rev. S. Turner, Red Hill Farm School, . 504
    Rev. John Clay, House of Correction, ... 505
    Rev. T. Carter, Liverpool Jail, ... 508
    Rev. F. Bishop, Liverpool Domestic Mission, ... 510
    W. Locke, Ragged School Union, ... 511
    A. Thompson, Aberdeen Indust. Schools, 512
    Rev. H. T. Powell, Warwick Asylum, 515
Redemption Institute at Hamburgh, ... 517
  Visit to, by Prof. Stowe, ... 527
  " " Mr. Mann, ... 528
Agricultural Reform School at Mettray, ... 533
Horticultural Reform School at Petit-Bourg, .. 549
Prison of La Roquette in Paris, ... 553
Reform School at Ruysselede in Belgium, ... 557
Philanthropic Soc. Farm School at Red Hill, .. 578

BELGIUM.

Page.
History of Public Instruction, ... 583
Outline of System adopted in 1842, ... 585
  Primary Schools, ... 586
  Secondary, ... 587
  Superior, ... 588
  Special and Industrial, ... 588
  Industrial Education, ... 588
  Normal Instruction, ... 591
  Teachers' Conferences, ... 592
  Normal School, ... 594
Reform School at Ruysselede, ... 555

HOLLAND.

History of Primary Instruction, ... 595
Outline of System. School Inspection, ... 595
Regulations as to examination of teachers, ... 601
  " " school inspectors, ... 603
  " " general order of Primary Schools, ... 605
Regulations respecting Religious Instruction, 606
Table. Primary Education in 1846, ... 608
Primary School at the Hague, ... 619
  " Normal School at Harlaem, ... 617

HAMBURGH.

Rauen-Hause, or Redemption Institute at Horn, ... 517

DENMARK.

Outline of System of Public Education, ... 619

SWEDEN.

Outline of System of Public Education, ... 621

NORWAY.

Outline of System of Public Education, ... 623

RUSSIA.

History of Public Instruction, ... 625
  Statistics of schools in 1850, ... 627

GREECE.

Outline of System, and Statistics in 1852, ... 633

ITALY.

Outline of System in Lombardy and Venice, 635
  " " " " Sardinia, ... 640
  " " " " Tuscany, ... 643
  " " " " Rome, ... 644
  " " " " Naples, ... 645

SPAIN.

Regulations respecting Normal Schools, ... 647

PORTUGAL.

Outline and Statistics of Public Bducation, .. 646

SCOTLAND.

History of Parochial Schools, ... 651
Normal School of the Church of Scotland, ... 661
  " School of Free Church, ... 671

IRELAND.

History of National Education, ... 677
Legislation of Henry VIII., ... 685
Protestant Charter Schools, ... 677
Kildare Place Society, ... 669
Commissioners of English Parliament, ... 678
  " National Education, ... 766
Results of the System, ... 679
  1. Attendance of Cath. and Prot. children, 679
  2. Teachers, ... 680
  3. Different grades of schools, ... 685
  4. School-houses, ... 689
  5. School-books, ... 689

Page.
6. System of Inspection, ... 689
7. Appropriations, ... 690
8. Influence on England, ... 691
Training Department and Model Schools, ... 693
Agricultural Education, ... 699
Professorships in Queen's Colleges, ... 699
Agricultural Department in National System, 700
Model Farm at Glasnevin, ... 703
List of Lectures at Glasnevin, ... 707
National School at Larne, ... 707
Dunmanway Model School, ... 709
Workhouse Agricultural School, ... 710
Operations of similar Schools in England,. 710
Queen's Colleges and University, ... 711

ENGLAND.

History of Public Elementary Schools, ... 721
Cloister and Cathedral Schools, ... 721
Benefit of Clergy to those who could read, 722
Grammar and Free Schools, ... 723
Amount of Educational endowments, ... 724
Voluntary Associations to promote schools, 725
Sunday Schools, ... 726
Monitorial System, ... 727
Joseph Lancaster, ... 728
Andrew Bell, ... 727
British and Foreign School Society, ... 728
National Society, ... 729
Society for promoting Christian Knowledge, 729
Religions Tract Society, ... 729
School for Adults, ... 729
Evening Schools, ... 729
Infant Schools, ... 730
Mechanics Institution, ... 730
Society for Diffusion of Useful Knowledge, 731
Central Society of Education, ... 731
Ragged School Union, ... 731
Philanthropic Society's Reform School, ... 732
Schools for Pauper Children, ... 733
Education of Children in Factories, ... 746
Schools of Industry, ... 733
Schools of Design, ... 734
Lancashire Public School Society, ... 734
National Public School Association, ... 734
Parliamentary action in behalf of Schools, .. 735
Bill of Mr. Whitbread in 1807, ... 735
Education Committee in 1816, ... 736
Bill of Mr. Brougham 1820, ... 736
Educational Charities, ... 736
Education Inquiry of, 1833, ... 736
Educational grant in 1833, ... 736
Report of Select Committee of 1834, ... 736
Efforts of Lord Brougham in 1835 and 1837, 737
Committee of Council in 1839, ... 739
Action of Committee of Council on Education, 740
Appointment of James P. Kay, as Secretary, 741
Aid towards School Buildings, ... 741
" Normal School Buildings, ... 741
" Normal Pupils, ... 741
" Salaries of Teachers, ... 741
" Apprentice Teachers, ... 741
" School-books and Apparatus,. 742
" Inspection of Schools, ... 742
Summary of results up to 1852, ... 745
Remarks of T. B. Macauley, ... 747
" Thomas Carlyle, ... 750
History and Condition of Normal Schools or Training Colleges, ... 751
Examination Papers on School Management and Art of Teaching, ... 757
Normal School of British and Foreign School Society, ... 761
Normal Department for Young Men, ... 763
Course of Conversational Reading, ... 775
Questions to test a School, ... 777
Model School, ... 779
Female Department of Normal School, ... 780
Hints to Candidates for Admission, ... 784
Normal and Model Schools of the Home and Infant School Society, ... 787
Qualifications of Candidates, ... 787
Course of Instruction for Teachers, ... 789
Graduated Course in the Model School, ... 795
Syllabus of Lectures on Education, ... 800
St. Mark's College, or Training Establishment for Masters for National Schools, ... 805
General Plan, by Rev. Derwent Coleridge,. 806
Musical Instruction, ... 812
Industrial Occupations, ... 814
Schools of Practice, ... 816
Oral Teaching, ... 820
Battersea Normal School, ... 823
Condition of the Laboring Poor, ... 824
Training of Pauper Children, ... 824
Visit to Normal Schools of Switzerland, ... 826
External Training of the Pupils, ... 826
Gymnastic Exercises, ... 830
Excursions into the Country, ... 831
Household Life, ... 832
Intellectual Training, ... 836
Phonic Method of Teaching Reading, ... 837
Arithmetic, ... 838
Elements of Mechanics, ... 839
Geography, ... 839
Drawing, ... 840
Vocal Music, ... 842
Lectures on Pedagogics, ... 843
Motives and Habits, ... 844
Training of Teachers for Large Towns, ... 844
Formation of Character, ... 846
Religious Life, ... 849
Theory and Practice of Teaching, ... 851
Results of the Experiment, ... 852
Chester Diocesan Training College, ... 855
Commercial and Agricultural School, ... 856
Model School, ... 862
Statistics of the Diocese, ... 863
Industrial Training, ... 867
Regularity of Attendance, ... 872
Normal Schools for Female Teachers, ... 875
Whiteland Institution, ... 875
Salisbury Diocesan Institute, ... 876
Lectures on the Principles of Education, ... 877
" Practice of Education, ... 878
Kneller Hall Training School for Teachers of Pauper Children, ... 879
Number of Pauper Children, ... 879
" Juvenile Criminals, ... 879
Condition of, as to Education, ... 879
Parish Apprenticeship, ... 880
Pauperism Hereditary, ... 880
Workhouse Schools, ... 881
Industrial Instruction, ... 882
District Pauper Schools, ... 884
Training School for Teachers, ... 885
Industrial Department of, ... 888
Daily Routine, ... 886
Discipline, ... 888
Order of Lessons, ... 889
Model Pauper School, ... 890

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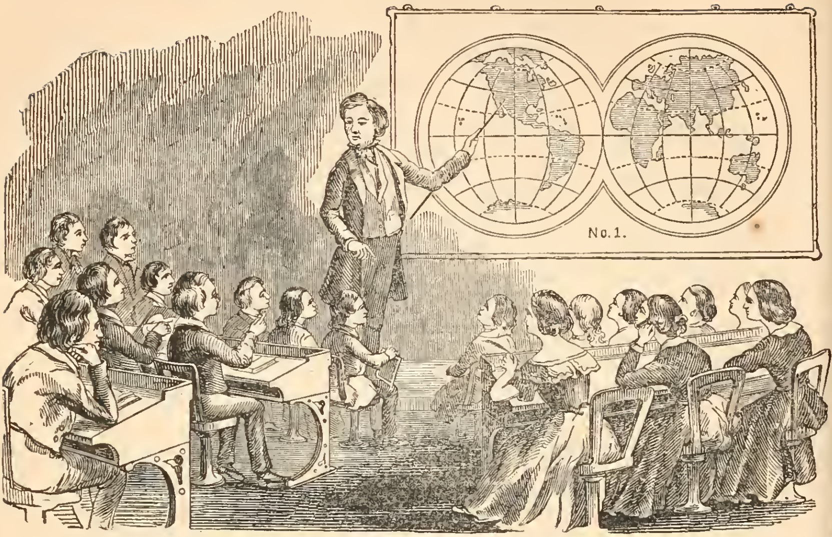

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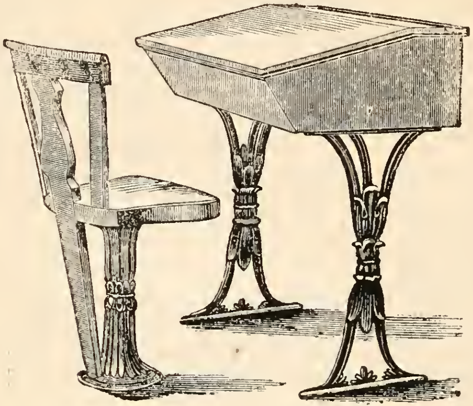

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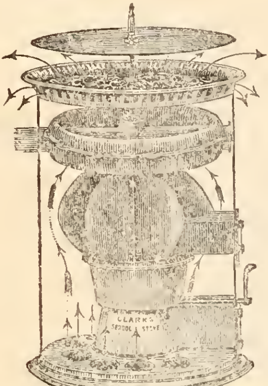

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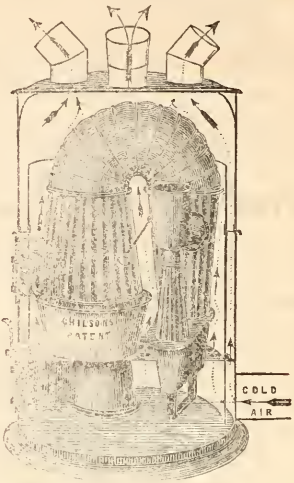

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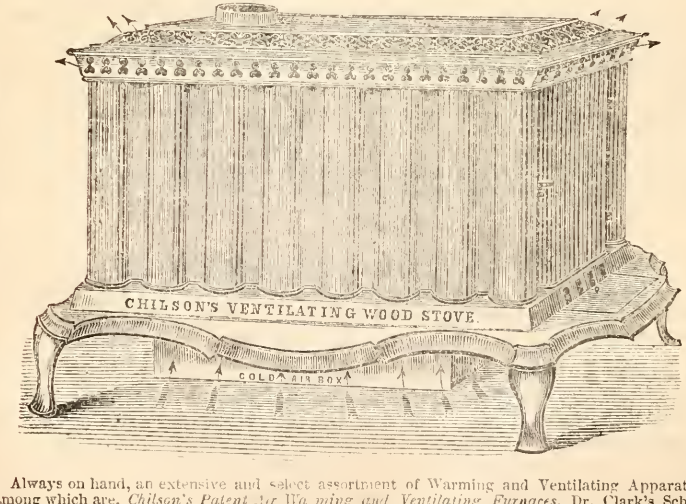

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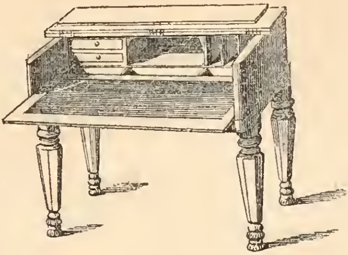

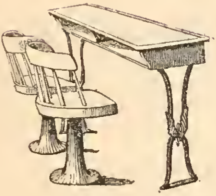

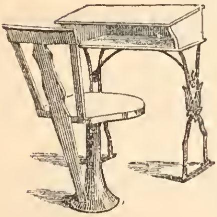

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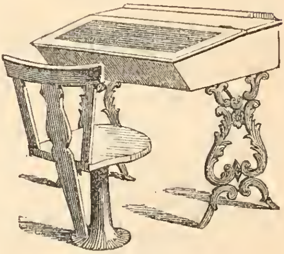

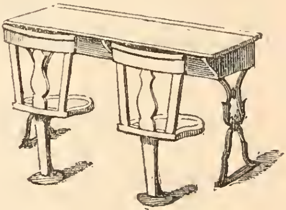

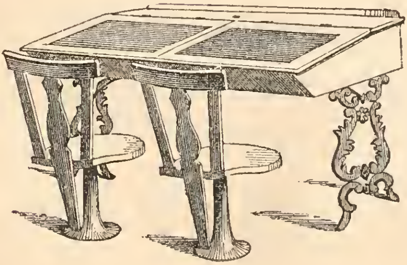

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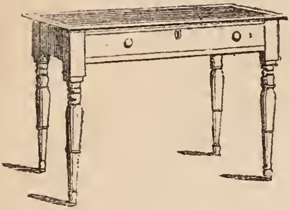

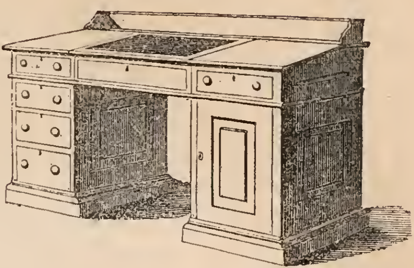

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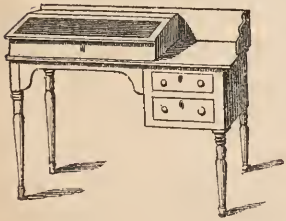

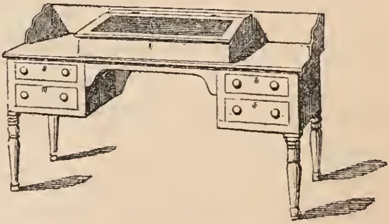

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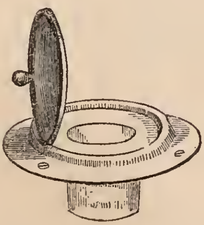

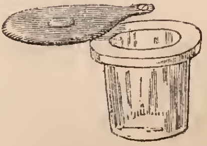

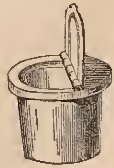

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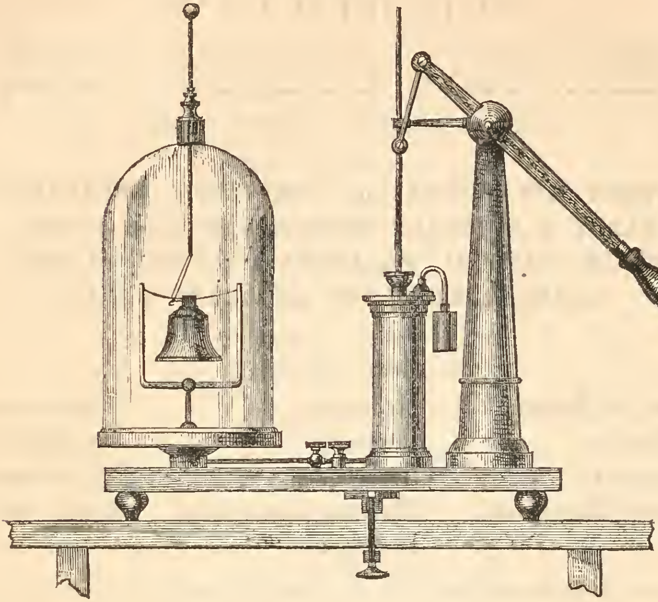

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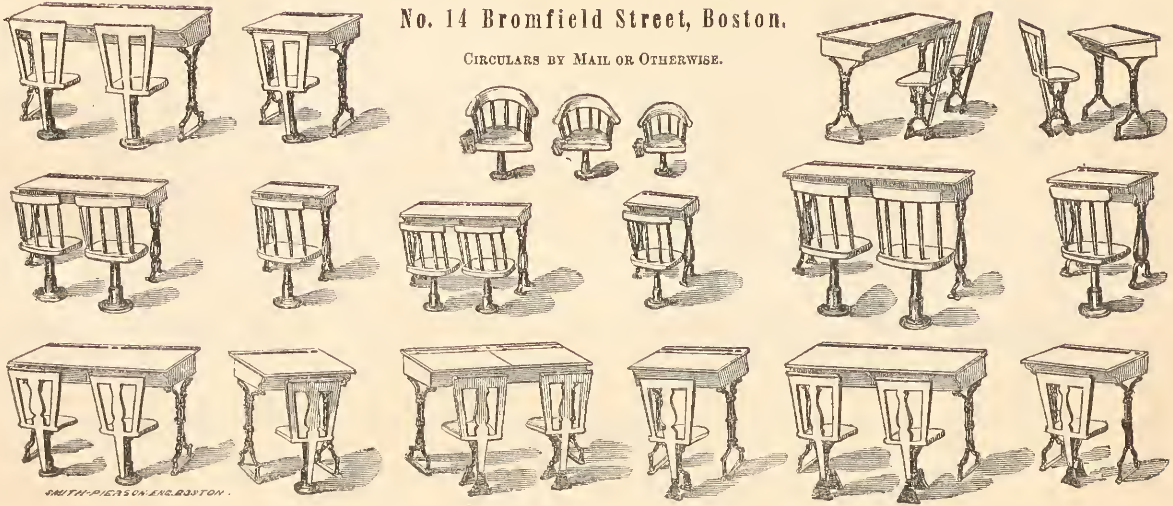
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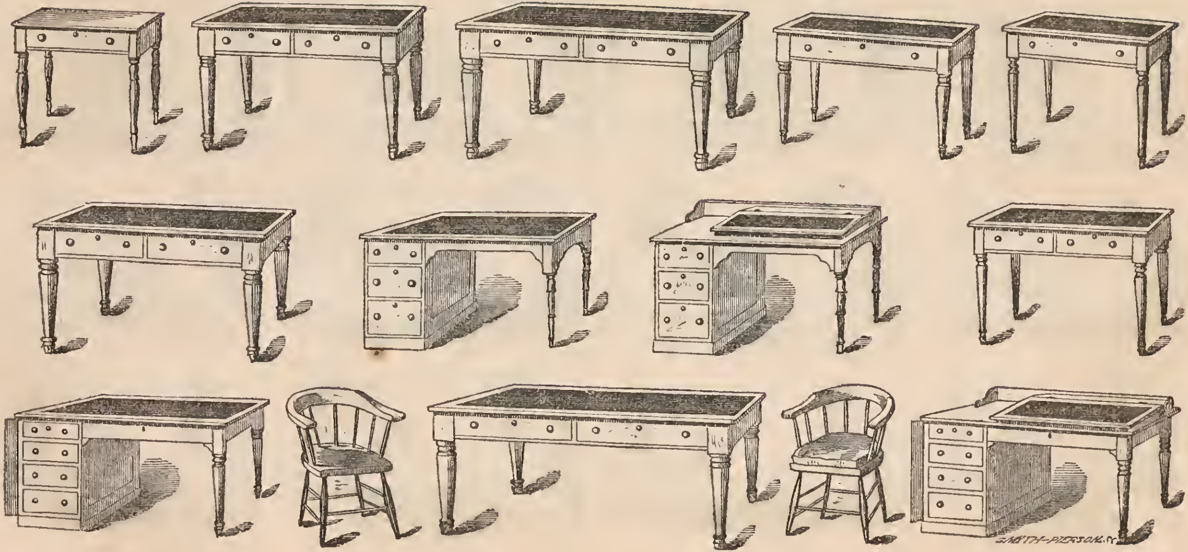
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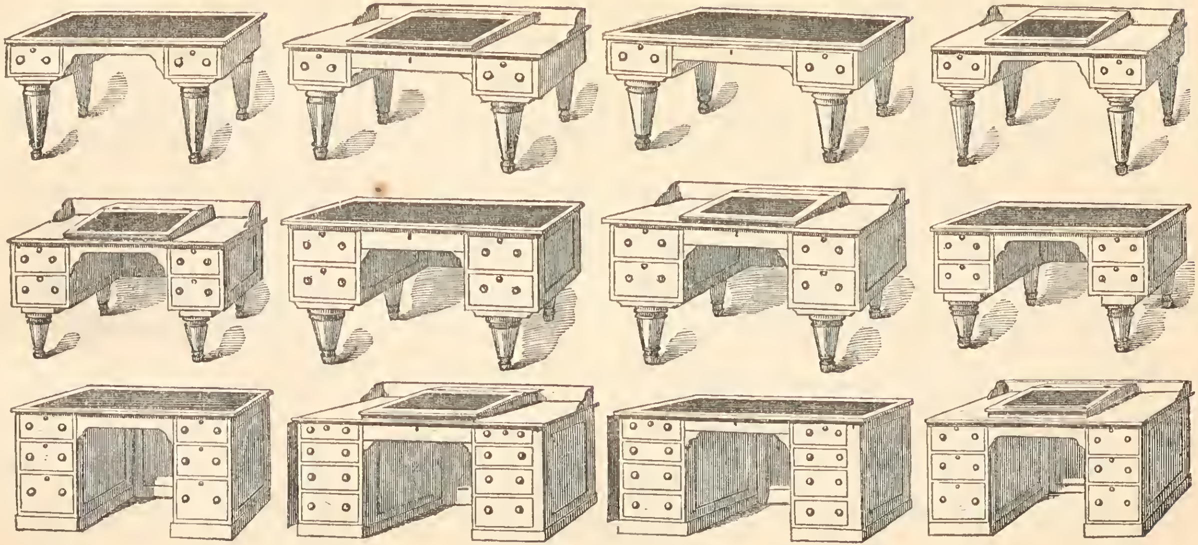

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THE

American Journal of Education.

No. IV.—MAY, 1856.

I. EDUCATIONAL BIOGRAPHY.

THOMAS HOPKINS GALLAUDET.

In continuing our sketches of eminent teachers and educators, we shall dwell* in this number of our Journal, on the life, and services of one who was both a practical teacher, and a widely influential educator,—at once eminently successful in a new, and difficult department of human culture, and in diffusing by pen, voice, and example, sound views as to principles and methods of instruction and discipline applicable to schools of different grades and character. But he was not only a successful teacher, and a wise educator, but the founder of an institution by which thousands have already been rescued from the doom of ignorance, and isolation from their kind; and tens of thousands more will yet be introduced to the boundless store of human and divine knowledge, to the delights of social intercourse, to a participation in the privileges of American citizenship, to a practical skill in the useful and liberal arts, and to the ability generally of adding each something to the stock of human happiness, and subtracting something from the sum of human misery. For his widely beneficent life and sublime Christian virtues, the world has added one other name to its small roll of truly good men, who have founded institutions of beneficence, and lifted from a portion of our race the burden of a terrible calamity;—

One other name with power endowed,
  To cheer and guide men onward as they pass,—
One other image on the heart bestowed,
  To dwell there beautiful in holiness.

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* The following sketch is abridged from a "*Tribute to Gallaudet.* A Discourse on the Life, Character, and Services of Thomas Hopkins Gallaudet, L. L. D., delivered before the Citizens of Hartford, 7th January 1852, with an Appendix, containing History of Deaf-mute Instruction and Institutions. By Henry Barnard. p. 267."

Thomas Hopkins Gallaudet was born in the city of Philadelphia, on the tenth of December, 1787. His father, Peter W. Gallaudet, was descended from that branch of a Huguenot family, which fled from France on the revocation of the Edict of Nantz, and settled afterwards near New Rochelle, in New York, on the borders of Connecticut. His mother, Jane Hopkins, was the daughter of Captain Thomas Hopkins, — a descendant of one of the first settlers of Hartford, whose name is recorded on the historical monument in the old burial-ground in the rear of the Centre Church. The family removed to Hartford in 1800, where the son continued ever after to reside.

Mr. Gallaudet completed his preparation at the Hartford Grammar School for the sophomore class of Yale College, which he entered in the autumn of 1802, in the fifteenth year of his age, — an age, as he often remarked, too young, to enable a student to reap the full advantage of a collegiate course of study and discipline. Although quite young, — the youngest member of his class, and by temperament and habit inclined to be cheerful and even mirthful,— he was ever studious, achieving a reputation for sound scholarship, second to no other in his class distinguished for the talent and attainments of its members, strictly observant of the laws of the institution, and graduated before he was eighteen years old. During his connection with college, he was remarkable for the accuracy of his recitations in every department of study, and was particularly eminent in mathematics, and for proficiency in English composition. To his early attention to mathematics we may attribute much of that discipline which enabled him to summon his mental vigor and resources at will, and to his early and constant practice of English composition, that facility and felicity of expression which characterized his conversation and more elaborate discourses.

Soon after leaving college he entered upon the study of law, in the office of Hon. Chauncey Goodrich. Here, as in everything he undertook, he was punctual and methodical, his recitations were remarkable for their accuracy, and he gave every assurance of his becoming in time a thorough and successful lawyer. The state of his health, which was never robust, compelled him, at the close of the first year, to suspend his legal studies, which he never resumed. The interval, before he entered on his duties as tutor in Yale College, in 1808, was devoted to an extensive course of reading in English literature, and the practice of English composition. His experience as tutor enabled him to review and extend his collegiate studies, and introduced him to the subject of education as a science, and to its practical duties as an art. No one could appreciate more highly than he did the value of even a brief experience in teaching, as a school of mental and moral discipline, and as the most direct way to test the accuracy of attainments already made.

About this time, his health requiring a more active life, he undertook a business commission for a large house in New York, the prosecution of which took him over the Alleghanies, into the States of Ohio and Kentucky, — and on his return, with the intention of pursuing a mercantile life, he entered as a clerk in a counting-room in the city of New York. But neither law nor commerce seemed to open the field in which he could labor with his whole heart and mind, although he often referred to his early acquaintance with their elementary principles and forms of business and practice, as a valuable part of his own education. Neither did he regard his collegiate education as at all an inappropriate preparation for a life of active mercantile business. He never entertained, for himself or his children, the absurd and mischievous notion, which is too prevalent in society, that a man having a collegiate or a liberal education must necessarily preach, or practise law, or hold a political office, or trade, or speculate on a large scale, to be respectable. He regarded the thorough training of the mind, and large acquaintance with books and men, as a fit preparation for any business or pursuit.

Mr. Gallaudet made a public profession of his religious faith, and became a member of the First Congregational Church of Hartford, under the ministry of Rev. Dr. Strong. In the fall of 1811, he commenced the study of theology at Andover, which he prosecuted with his usual diligence and success, amid all the interruptions and drawbacks of delicate health. He was licensed to preach in 1814, and received, immediately, an invitation to assume the pastoral relations with a church in Portsmouth, New Hampshire, and from several parishes in Connecticut; but, although admirably adapted for such a life, his Master had work for him in other and no less important fields of Christian duty.

Mr. Gallaudet was now twenty-seven years old. His life, thus far, was a course of diligent and thorough preparation for a career of eminent usefulness in any department of literary or professional labor. His mind was disciplined and enriched by an assiduous improvement of all the advantages of one of the best colleges in our country. He had assured himself of his own knowledge, by his success as a practical teacher. He had devoted much time to the attentive study of English literature, and to the practice of English composition. He had gained a knowledge of the elementary principles of law, and of legal forms, by an attendance on legal proceedings in court, and in the office of a successful practitioner. He had gone through a thorough course of theological study, and had already officiated with great acceptance as a preacher in a temporary supply of the pulpit in several places. He had seen much of the world, and the transactions of business, in travel, and in the practical duties of the store and the counting-room. He was universally respected for his correct life, as well as thorough scholarship, and beloved for his benevolent feelings, social qualities, and courteous manners. He was ready for his mission. That mission was the long-neglected field of deaf-mute instruction, to which his attention had already been turned from his interest in little Alice Cogswell,* whose father's residence was in the immediate neighborhood of his own home, and who was, also, the companion of his own younger brothers and sisters. It was during an interview in his father's garden, where Alice was playing with other children, that Mr. Gallaudet, then a student at Andover, succeeded in arresting her attention by his use of signs, the natural language of the deaf and dumb, and in giving her a first lesson in written language, by teaching her that the word *hat* represented the *thing*, hat, which he held in his hand. Following up this first step, in such methods as his own ingenuity could suggest, and with such lights as he could gather from a publication of the Abbé Sicard, which Dr. Cogswell had procured from Paris, Mr. Gallaudet, from time to time, succeeded in imparting to her a knowledge of many simple words and sentences, which were much enlarged by members of her own family, and, especially, by her first teacher, Miss Lydia Huntley [better known as Mrs. Sigourney].† This success encouraged her father in the hope that, instead of sending his child, made more dear to him by her privations, away from home, to Edinburgh, or London, for instruction in the schools of Rev. R. Kinniburgh, or Dr. Watson, a school might be opened in Hartford.

Dr. Cogswell had already ascertained, by a circular addressed to the Congregational clergymen of Connecticut, that there were at least eighty deaf mutes in the state, many of whom were young enough to attend a school; and his Christian benevolence prompted the aspiration and belief that it was not the "will of our Father who is in heaven, that one of these little ones should perish." With these data and aims before him, and with such information as he could gather as to the progress and results of deaf-mute instruction in Europe, he addressed himself to the Christian benevolence and kind feelings of his neighbors and friends, for their coöperation. A meeting was accordingly held at his house, on the thirteenth of April, 1815, composed

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* We shall give, in a subsequent number of the *Journal*, a brief biographical sketch of Alice Cogswell, whose name is so indissolubly connected with the history of deaf-mute instruction in America.

† Mrs. Sigourney has given an interesting sketch of Alice, in her interesting volume entitled "My Pupils," published by Carter, New York, 1853.

(as appears from a journal kept by Mr. Gallaudet) of Mason F. Cogswell, M. D., Ward Woodbridge, Esq., Daniel Wadsworth, Esq., Henry Hudson, Esq., Hon. Nathaniel Terry, John Caldwell, Esq., Daniel Buck, Esq., Joseph Battel, Esq. (of Norfolk), the Rev. Nathan Strong, D. D., and Rev. Thomas H. Gallaudet. The meeting was opened with the invocation of the Divine blessing on their undertaking, by Rev. Dr. Strong, and after a full discussion of the practicability of sending some suitable person to Europe, to acquire the art of instructing the deaf and dumb, Dr. Cogswell and Mr. Woodbridge * were appointed a committee to obtain subscriptions for the purpose, and ascertain the name of a suitable person who would consent to go.

To Mr. Gallaudet, the eyes of all interested in the object were instinctively turned, as the one person, qualified beyond all others, by his manners, talents, attainments, and Christian spirit, to engage in this mission. After much prayerful consideration of the subject, and not till he had failed to enlist the agency of others in this pioneer work of benevolence, on the twentieth of April, 1815, he informed Dr. Cogswell and Mr. Woodbridge "that he would visit Europe for the sake of qualifying himself to become a teacher of the deaf and dumb in this country." On the twentieth of May following, he sailed for New York, in the prosecution of his benevolent object.

Encountering unexpected delays in obtaining admission as a pupil into the London Asylum, then under the care of Joseph Watson, LL. D., he had made arrangements to spend a year in the institution at Edinburgh, which was also likely to be thwarted, when he opportunely gained an introduction to the Abbé Sicard, who was at that time on a visit to London for the purpose of giving a course of lectures explanatory of his method of teaching the deaf and dumb, accompanied by Massieu and Clerc, his favorite pupils and assistants. By this benevolent man, one of the greatest benefactors of the deaf mute, Mr. Gallaudet was cordially received, and invited to visit Paris, where every facility would be extended to him without fee, or hindrance of any kind. He accordingly repaired to Paris, where he devoted himself assiduously to the study of deaf-mute instruction until July, 1816,

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* Mr. Woodbridge was then in the prime of life, and in the front rank of the mercantile interest of Hartford. By his personal solicitation, and the example of his own liberal subscription, he succeeded in the course of one day in obtaining the pledge of a sufficient sum to meet the expense of the enterprise, and, it is safe to say, that no other business transaction of his life is now associated with such a train of pleasant recollections. He, and Daniel Buck, Esq., are now [1856] the only survivors of that first voluntary association, in whose prayers, pecuniary contributions, and personal exertions, the American Asylum had its origin. Foremost on the list of subscribers in amount, stands the name of Daniel Wadsworth, who gave, to the community in which he lived, through a long life, a beautiful example of the true uses of wealth, by its judicious expenditure under his own personal inspection, for the promotion of Christian, benevolent, patriotic, and literary purposes.

when he had the happiness of embarking for America with Mr. Laurent Clerc, a highly educated deaf mute, one of the ablest pupils of Sicard, and one of the best teachers of the Paris Institution, — an event* of scarcely less importance to the immediate success of the American Asylum, than Mr. Gallaudet's own consent to visit Europe in its behalf.

After two years of preparation, spent in organizing an association based on the principle of permanency, raising funds, training and procuring teachers, and making its objects known through the press, personal interviews, and public addresses, the Asylum was opened with a class of seven pupils, on Wednesday, the fifteenth of April, 1817, in the south part of the building now occupied by the City Hotel, in Hartford. On the Sunday evening following, — April 20th, — just two years after he had signified his assent to devote himself to this enterprise, Mr. Gallaudet delivered a discourse in the Centre Congregational Church, before a crowded audience, and in the presence of his interesting group of seven pupils, from the words of Isaiah : — "Then the eyes of the blind shall be opened, and the ears of the deaf unstopped. Then shall the lame man leap as a hart, and the tongue of the dumb sing; for, in the wilderness, waters shall break out, and streams in the desert" — in which he set forth the advantages likely to arise from the establishment of the Asylum, and the motives which should inspire those who are interested in its welfare with renewed zeal and the hopes of ultimate success. On rising from a fresh perusal of this admirable discourse, written in such pure, polished, and idiomatic English, and breathing so much of the spirit of Him, by whose miraculous agency the ears of the deaf were opened, and the tongue of the dumb loosened; and contrasting that group of seven pupils, ignorant, isolated, and unhappy, and the moral desert in which the deaf mute then dwelt, with the thousands of the same class who have since been instructed, and the thousand homes which have since been cheered and blessed, and all the good, direct and indirect, to the cause of Christian philanthropy which has flowed out of these small beginnings, we seem almost to stand at the well-spring of that river of life, seen in the vision of the prophet, which, flowing out from beneath the sanctuary, and on the right hand of the altar, into the wilderness, a little rill that could be stepped over, widened and deepened in its progress, till it became a mighty stream, — a stream which could not be passed, imparting life wherever it came, and nourishing all along its banks, trees, whose fruit was for meat, and whose leaves for medicine.

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* How touchingly did Mr. Gallaudet refer to that event in his address at the ever-memorable gathering of the deaf and dumb at Hartford, thirty-four years afterwards: — "What should I have accomplished, if the same kind Providence had not enabled me to bring back from France, his native land, one whom we still rejoice to see among us, himself a deaf mute, intelligent and accomplished, trained under the distinguished Sicard, at that time teaching the highest class in the Paris Institution, to be my coadjutor here at home ; to excite a still deeper interest in the object to which he came to devote his talents and efforts ; to assist in collecting those funds which were absolutely essential for the very commencement of the operations of the Asylum ; to be my first, and, for a time, only fellow-laborer in the course of instruction, and then to render necessary and most efficient aid in preparing for their work the additional teachers who were needed."

Although he came to a land of strangers, he now (1856) finds himself, as the years pass lightly over him, near his children and grand-children, amid a circle of appreciating friends and grateful pupils, who will ever shower blessings on him for his many sacrifices and labors in their behalf.

From time to time, in the course of every year, before the legislatures of the several New England States, in the halls of Congress, in all of the large cities of the Northern and Middle States, Mr. Gallaudet, accompanied and assisted by Mr. Clerc, and, not unfrequently, by a class of pupils, continued to present and advocate the claims of the deaf mute on the benevolent regards of individuals and public bodies. The way was thus prepared for that liberality which has since marked the legislation of the country, by which the education of the deaf and dumb has become part of the public policy of all the older, and most of the new States.

It will not be necessary to follow any further in detail Mr. Gallaudet's labors in connection with the American Asylum, and for the benefit of the deaf and dumb. These labors were eminently judicious and successful; and although in an undertaking of such magnitude there are many agencies and many laborers, and all those who work at the foundation, or even beyond that, who gather slowly the material and the laborers, and those who work on the top stone, or the ornaments, perform a necessary and an honorable part, and all deserve to be remembered with gratitude, still it is instinctively and universally felt that the directing mind in this great enterprise, — in its inception, its gradual maturing, and ultimate organization, — is that of THOMAS HOPKINS GALLAUDET. Of this we are sure, that he worked incessantly and wisely, and out to the full circumference of his duty and ability. His labors and anxieties, necessarily attendant on such an undertaking, — the striking out of new plans and methods, the reconcilement of differing views in different departments of authority and instruction, until the best working plan was in successful operation, — were too much for a temperament naturally so excitable as his, and for a constitution never robust. He accordingly felt it necessary to resign his place as Principal of the American Asylum in 1830, although he never ceased to take an active interest as director in its affairs, and was always consulted, up to his last illness, with filial confidence and affection, by the instructors and directors of the institution.

The repose from constant occupation in the instruction and oversight of the affairs of the Asylum which his resignation afforded him, was devoted by Mr. Gallaudet to the prosecution of literary pursuits, as congenial to his tastes and early habits, and as a means of supporting his family. He was distinguished, while in college, for his facility and felicity in English composition; and the volume of Discourses, preached by him in the chapel of the Oratoire, while studying in Paris, and published in 1817, in which the purity at once of his literary taste and Christian character is displayed, would alone entitle him to a prominent place among the worthies of the American pulpit. In 1831, he published the "Child's Book on the Soul," which exhibits his remarkable tact in bringing the most abstract subject within the grasp of the feeblest and youngest mind. This little volume has gone through a large number of editions, in this country and in England, and has been translated into the French, Spanish, German, and Italian languages. This publication was followed by several others of the same character, and which were widely read. His "Mother's Primer" has lightened the task of infantile instruction in many homes and many schools; and his "Defining Dictionary," and "Practical Spelling-Book," composed in connection with Rev. Horace Hooker, rigidly and perseveringly followed, are invaluable guides to teacher and pupil to a practical knowledge of the meaning and use of our language in composition and conversation. At the urgent request of the American Tract Society, he commenced, in 1833, the publication of a series of volumes under the general title of "Scripture Biography," which was incomplete at the time of his death, but which, as far as published, are to be found in most of the Sunday School and Juvenile Libraries of our country. In 1835, he published the first part of a work, with the title of "The Every-Day Christian," in which he endeavors to delineate certain traits of Christian character, and to lead his readers to the consideration of certain every-day duties, which are in danger of being overlooked amid the occupations and pursuits of this world. In this volume he unfolds, at some length, his own ideal of a Christian life, as exhibited in the family state, and in the faithful and conscientious performance of a class of duties which, although unseen, are essential parts of the vast moral machinery which the Almighty Hand is wielding for the accomplishment of the designs of Infinite Wisdom and Goodness. The plan of the work was probably suggested by a movement on the part of many public-spirited and benevolent citizens of Hartford, in the winter of 1834–35, to promote the cause of moral reform among the youth of that city. The prosecution of the object, to Mr. Gallaudet's mind, was accompanied with too much denunciation of amusements, innocent in themselves, and objectionable only when pursued too far, and under circumstances calculated to lead to excessive indulgence, and to vicious associations and associates. His mode of keeping young people out of places of idle and corrupting resort, as set forth in a public address at that time, and more elaborately in this little volume, is to make home pleasant and attractive, — to cultivate the taste and the habits of reading, of fireside amusements and social intercourse — and to make home attractive not only to the children of the family, but to clerks and apprentices, who may be in the employment or under the guardianship of the head of the family.

Valuable as these publications are, both in the matter and manner of their execution, and popular as many of them have been and still are, they are only the indications of what he might have accomplished in this department of authorship, if he had enjoyed firmer health and more leisure for meditation and study. It is safe to say that Mr. Gallaudet never rose in the morning without having in his mind or on his hands some extra duty of philanthropy to perform, — something beyond what attached to him from his official or regular engagements. His assistance was asked whenever an appeal was to be made to the public, in behalf of a benevolent or religious object, which required the exercise of a cultivated intellect, the impulses of a benevolent heart, and the personal influence of a character confessedly above all political and sectarian principles.

Although through his whole life a practical educator and teacher, it was during this period that he distinguished himself as the friend, and efficient promoter by pen and voice, of educational improvement. On all movements in behalf of general education, in institutions and methods, he formed his own opinions with his usual caution, and maintained them with courtesy and firmness. While he acknowledged the fact of mutual instruction in the family and in life, which lies at the foundation of Bell's and Lancaster's systems of monitorial instruction, as an educational principle of universal application in schools, and always advocated and practised the employment of older children in the family, and of the older and more advanced pupils in the school, in the work of instructing and governing the younger and least advanced, he never countenanced for a moment the idea which swept over our country from 1820 to 1830, that monitors, young and inexperienced in instruction and life, could ever supply the place, in schools, of professionally trained teachers of mature age, thorough mental discipline, and high moral character.

Although he always advocated, and applied in his own family and family school, the principles of infant education, commencing with the child while in the arms of the mother and the lap of the father, he kept aloof from the efforts which were so generally put forth in our larger cities, from 1826 to 1832, for the establishment of infant schools, as then understood and conducted. He sympathized deeply in the movement for the establishment of manual labor schools from 1832 to 1838, and was the constant advocate of more thorough physical education in institutions of every grade, from the family to the professional school. Although not strictly the first to present to the people of Connecticut and of New England the necessity of providing special institutions for the professional training of young men and young women for the office of teaching, his "Letters of a Father," published in the Connecticut Observer in 1825, and afterward circulated in a pamphlet, were among the earliest and most effective publications on the subject.

He was among the most earnest to call attention, in conversation, through the press, and in educational meetings, to the whole subject of female education, and especially to the more extensive employment of females as teachers. His hopes for the regeneration of society, and especially for the infusion of a more refined culture in manners and morals into the family, and especially into common schools, rested on the influence of pious and educated women as mothers and teachers. He was early interested in the establishment of the Hartford Female Seminary, and delivered an address in 1827 in its behalf, which was published. He was connected with the general supervision of the Seminary, and with its instruction as lecturer on composition and moral philosophy, in 1833.

Although, in the absence of such common schools as could meet his views of the wants of his own children, especially in all that regards moral and religious culture, and personal habits and manners, he for years established a small family school for the education of his own children, and the children of his immediate friends, he was ever the advocate of the most liberal appropriation, and of the most complete organization, instruction and discipline of public or common schools, — and he did much, by pen and voice, to advocate their improvement. As has already been stated, so early as 1825, he fixed for the first time the attention of educators, and to some extent of the public, on the source of all radical and extensive improvement of them and all schools, in the professional training of teachers. In 1827 he was an active member of the Connecticut Society for the Improvement of Common Schools, of which Hon. Roger Minot Sherman was President, and the Rev. Horace Hooker, and the Rev. Thomas Robbins, D. D., the real laborers, — one of the first, if not the first society of the kind in this country. He was a member of the committee of arrangements in the teachers' convention held in Hartford, in October, 1830, of which Noah Webster, LL. D., was President. The discussions in that convention, of such topics as the influence of the school fund of Connecticut as the main reliance of the people for the support of common schools, in which Dr. Humphrey, then President of Amherst College, a native of the State, and a teacher for many years in her district schools, took an active part; — the proper construction of school-houses, on which subject Dr. William A. Alcott read a paper, which was afterward published as a prize essay by the American Institute of Instruction, and circulated all over the country; — the qualifications of teachers, which was ably presented in a lecture by Rev. Gustavus Davis, — had a powerful influence on the cause of educational improvement throughout New England. In 1833 he wrote a little tract, entitled "Public Schools Public Blessings," which was published by the New York Public School Society for general circulation in the city of New York, at a time when an effort was made, which proved successful, to enlarge the operations of that society.

In 1838, he was the person, and the only person, had in view, to fill the office of Secretary of the Board of Commissioners of Common Schools in Connecticut, when the bill was drafted for a public act "to provide for the better supervision of common schools" in Connecticut. The post was urged on his acceptance, with the offer and guaranty by individuals of an addition of one third to the salary paid by the State. He declined, mainly from his unwillingness to absent himself as much from his family as the plan of operations contemplated, and also "because of the apathy, as to the importance of this cause, which he had many reasons to know weighed not only on the public mind generally, but on the minds and hearts of good men, and even Christians, who take an active and liberal part in other moral and religious movements. To break up this apathy, requires more of youthful strength and enthusiasm than can be found in an invalid and a man of fifty years of age." In a conversation held with the individual who afterward entered on this field of labor, through his earnest solicitations, Mr. Gallaudet anticipated the difficulties which that enterprise afterward encountered, and which he feared would "probably not entirely defeat, but must inevitably postpone its success. But never mind; the cause is worth laboring and suffering for; and enter on your work with a manly trust that the people will yet see its transcendent importance to them and their children to the latest posterity, and that God will bless an enterprise fraught with so much of good to every plan of local benevolence." In company with the Secretary, he visited every county in the State in 1838, and addressed conventions of teachers, school officers and parents. He took part in the course of instruction of the first normal class, or teachers' institute,* held in this country, in 1839, and again in a similar institute in 1840. He appeared before the Joint Committee of Education in the General Assembly, on several occasions when appropriations for a normal school were asked for. He was one of the lecturers in the teachers' convention held in Hartford in 1846, — and had the gratification of welcoming to the State Normal School at New Britain, in 1850, the first class of pupil teachers, and of taking part in their instruction. He was to have delivered a public address before one of the literary societies in that institution, called, in gratitude for his early and constant advocacy of normal schools, after his name, at the first anniversary of the State Normal School in September, 1851.

Mr. Gallaudet was a contributor at different times to the "Annals of Education," while under the charge of William C. Woodbridge, and to the "Connecticut Common School Journal" from 1838 to 1842. In 1839 he edited an American edition of "Principles of Teaching, by Henry Dunn, Secretary of the British and Foreign School Society, London," under the title of "Schoolmaster's Manual" — a truly valuable work, which has gone through many editions in England.

He took an active interest in the lyceum movement, from 1826 to 1840, — and particularly in the Goodrich Association, in 1831, under whose auspices the first course of popular lectures was delivered in Connecticut, — and in the proceedings of the American Lyceum, at its annual meeting in Hartford, in 1838, out of which originated the Hartford Young Men's Institute in the same year. In fine, he sympathized with, and participated, so far as his health and other engagements would allow, in every movement which aimed to elevate, purify and bless society through a wide-spread system of popular education.

In 1837, the county of Hartford, through the exertions mainly of Alfred Smith, Esq., erected a prison, on a plan which admitted of a classification of the prisoners, of their entire separation at night, of their employment in labor under constant supervision by day, and of their receiving appropriate moral and religious instruction. Mr. Gallaudet sympathized warmly with this movement, and in the absence of any means at the disposal of the county commissioners to employ the services of a chaplain and religious teacher, volunteered to discharge these duties without pay. He continued to perform religious service every Sabbath morning for eight years, and to visit the prison from time to time during each week, whenever he had reason to suppose his presence and prayers were particularly desired. In such labors of love to the criminal and neglected, unseen of men, and not known to twenty individuals in Hartford, the genuine philanthropy and Christian spirit of this good man found its pleasantest field of exercise.

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* An account of this Institute is published in the "Connecticut Common School Journal" for 1839.

On the sixth of June, 1838, Mr. Gallaudet became connected with the Connecticut Retreat for the Insane,* as chaplain, the duties of which office he continued to discharge, with exemplary fidelity and happy results, up to the day of his last illness.

Mr. Gallaudet entered on his new and interesting field of labor with his usual caution, preparation and thoroughness. No man could study his duties with a more prayerful and earnest spirit, — no one could improve more faithfully every opportunity to become intimately acquainted with the peculiarities of the mental and moral condition of each of the numerous inmates of the Retreat, — no one could aim to act in more perfect accordance with the counsels and directions of the superintending physician, — no one could select with more cautious deliberation the truths of religion which could be advantageously adapted to those who are laboring under mental or moral delusions, or more wisely present the motives which could aid in leading back such to a self-controlling and healthful condition of mind, or administer the consolation that would reach their real or supposed trials. The experience of each successive year furnished accumulating evidence of the usefulness of his labors, and the efficacy of kind moral treatment and a wise religious influence in the melioration and care of the insane. How beautifully did both his manner and success illustrate the wisdom of that law of kindness, which Dr. Todd impressed on the organization of this retreat as the all-pervading and plastic power of its moral discipline! O, how vividly did his mode of conversing with the insane bring back the image and language of that gifted man, — the first physician and founder of the Retreat! — how beautifully did the labors of both realize the language in which Whittier describes the true mode of dealing with the insane!

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* Although the directors of this institution were the first to make an appointment of this character, not only for the purpose of daily family worship, and religious worship on the Sabbath for its officers and inmates, but as part of the system of moral treatment of insanity, — still the earliest movement in this direction was made by the trustees and superintendent of the State Lunatic Hospital at Worcester, Mass., in 1835.

To carry out his plans to perfection in this important department of the moral treatment of insanity, and especially in its early stages, Dr. Woodward felt the necessity of having the coöperation of a clergyman of cheerful and yet fervent piety, of large acquaintance with men, and of great versatility in modes of reaching the human mind and heart, and, above all, of that Christlike spirit, "which, touched with a sense of human infirmity," should not expend itself in passive pity, but in wholesome and practical action for its relief. These qualities and qualifications he knew belonged, in a preëminent degree, to Mr. Gallaudet, and to him the chaplaincy in the institution at Worcester was tendered.

> "Gentle as angels' ministry,
> The guiding hand of love should be,
> Which seeks again those chords to bind
> Which human woe hath rent apart, —
> To heal again the wounded mind,
> And bind anew the broken heart.
> The hand which tunes to harmony
> The cunning harp whose strings are riven
> Must move as light and quietly
> As that meek breath of summer heaven
> Which woke of old its melody ; —
> And kindness to the dim of soul,
> Whilst aught of rude and stern control
> The clouded heart can deeply feel,
> Is welcome as the odors fanned
> From some unseen and flowering land,
> Around the weary seaman's keel!"

Mr. Gallaudet's experience and observations among the insane were not lost upon him as an educator, but furnished him with facts and illustrations, by which, in his practical lectures to teachers, or conversation with parents and others interested in the cause of education, he shed light upon questions of deep and general interest connected with the philosophy of mind, and the reciprocal influence which the mind and body have upon each other, — the elements of moral science, — the education and training of children and youth, both in families and schools,— the preservation of health and reason, and the precautionary measures to be pursued to guard against the ills of the flesh and the spirit, and thus enabling every individual to prevent more than the most successful institution can ever mitigate or remove. To him the Retreat was not only the field of Christian benevolence, but a school of practical wisdom as an educator. In the conviction that a defective and faulty education, through the period of infancy and youth, is the most prolific cause of insanity, and that we must look to a well directed system of education, having for its object physical improvement, no less than moral and mental culture, as the best security against the attacks of this most formidable disease, he dwelt on the importance of paying attention to the physical condition and improvement of schools, to ventilation, to all the arrangements of the yard, to exercise, to frequent intervals of relaxation from study spent in the fresh air and in athletic sports, to the proportionate development of all the faculties, and, in all cases, to the avoidance of undue stimulants to study, especially with young children and with females.

In 1835–6 Mr. Gallaudet was induced by an association of which Mr. Richard Bigelow and Henry Hudson, Esq , of Hartford, were the active members, to visit the western states in reference to a plan of religious education for that section of the country, which, in coöperation with local and individual efforts, and in aid of existing schools, contemplated a supply of well qualified teachers and the establishment, in each state, of at least one model institution of Christian education. The financial disasters which swept over the country soon after, crippled the means of several of the active promoters of the plan, and it was postponed, never to be renewed under the same auspices.*

Among the religious and benevolent enterprises in which he was particularly interested, may be mentioned the American Tract Society, of the Connecticut branch of which he was for many years president; the cause of universal peace, which he aimed to promote by disseminating information among all men, of the anti-Christian tendency of the war spirit, and by cultivating, in every way, the doctrines and graces of Christianity, commencing always with the individual, and spreading out through the family and the neighborhood, till they embraced the state and the world; and the civilization and Christianization of Africa by means of colonies of free, intelligent, and religious blacks from this country. To the American Colonization Society and its affiliated societies, he was in the habit of looking as the great instrumentality, under Providence, for elevating the condition of the African race in its own home, and wherever the cupidity of other races may have forcibly transplanted it. No man could be more kind and considerate in his attentions and efforts to improve the condition of this class of our population at home, and especially in providing them with the means of intellectual and religious improvement.

After living a life of practical usefulness, such as it is the privilege of but few good men to live, and yet such as every wise man at the time of his death, if he could live his life over again, would aspire to live, Mr. Gallaudet died as every good man would desire to die. Overtaken by sickness in the discharge of his duties at the Retreat, he retired to his own home and his chamber on the night of the twentieth of July, to go no more out, until borne by others to his last resting-place. His disease proved to be an aggravated form of dysentery, and so prolonged and so severe was the attack, that his constitution, never robust, and his strength, which was never vigorous, and which for the last twenty years had been husbanded only with extreme care, sank beneath it; and after forty-six wearisome days and nights, during most of which his mind was remarkably clear and active, and his faith undimmed, he died on the tenth of September, 1851, leaving to his widow and eight children, and the sorrowing community where he was best known, the inestimable legacy of his life and character, and the consoling lesson of his death.

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* At a later period a somewhat similar enterprise was undertaken by Miss Catherine E. Beecher, to which Mr. Gallaudet ever gave his counsel and aid, in preparing the class of teachers who have, for the last eight years, assembled in Hartford for a course of preparatory instruction before going west.

In the bosom of his family, — watched over by the gentle eye of affection, — ministered to by children who would keep him yet a little longer from the sky, — the last offices of the sick-room sought by neighbors and friends, who would thus requite his kindness to them, and mark their appreciation of his worth, — without one gathering mist or shade on his hope of a blessed hereafter, secured (to use his own language) not by merits of his own, but by the redeeming grace of God, — he passed through his last tedious sickness, feeling the arm of his Saviour beneath him; and when his hour came, his spirit passed away so gently, that the precise moment was unmarked:

> "They thought him dying when he slept,
> And sleeping when he died.
>
> "His soul to Him who gave it rose;
> God led him to his long repose,
> His glorious rest;
> And though that Christian's sun has set,
> Its light shall linger round us yet,
> Bright radiant, blest."

Mr. Gallaudet was married, on the tenth of June, 1821, to Miss Sophia Fowler, of Guilford, a deaf mute, with whom his acquaintance commenced while she was a member of the first class of pupils instructed by him at the Asylum. Seldom has domestic life been blessed with so sweet an accord of temper, taste, and views, of family instruction and discipline, and by such a bright dower of clustering charities, — a triumphant testimony to the deaf mutes, of their inherent capability, properly instructed, to take their appropriate position of influence in the family state. In no one position did the distinguishing features of his mind and heart shine out more clearly than in his own home, and in the practical discharge of his domestic and social duties. Here his views, as a wise educator, were illustrated by beginning the work of parental instruction and example in the very arms of the mother, and in the lap of the father, while natural affection tempers authority with love, and filial fear with filial attachment and gratitude. Here he aimed to form habits, as well as principles of truth, temperance, honesty, justice, virtue, kindness, and industry. Here, by example and influence, by well-timed instruction, and judicious counsels, by a discipline uniform in its demands of strict obedience, yet tempered with parental fondness and familiarity, did he aim to fulfil the obligations which God had imposed on him as the head of a family; and in this preparatory sphere of instruction he had the personal and assiduous attention of Mrs. Gallaudet.

II. TESTIMONIAL AND MONUMENT

TO THOMAS HOPKINS GALLAUDET.

It was the rare fortune of Thomas Hopkins Gallaudet not only to achieve a great and permanent work of beneficence in the institution of the American Asylum for the Deaf and Dumb, but to receive while living, the most touching evidences of filial respect and affection from the individuals and the class whom his deeds had blessed; and, after his decease, to have had erected to his memory by them an appropriate and enduring monument of their gratitude, on the ground which had been the scene of his labors, and of their happiness.

The world has seldom witnessed a more novel and affecting spectacle than was exhibited in the Center Congregational Church in Hartford, on the 26th of September 1850, where a large number of the graduates of the institution assembled to testify, by the presentation of silver plate, their affectionate respect to their first teachers, Messrs. Gallaudet and Clerc, as the chief immediate instruments of their own elevation in the scale of intelligence, usefulness, and happiness, and the primary agents in procuring all the practical blessings which education has given, and is still bestowing on the whole class of deaf-mutes in this country. Over four hundred of this unfortunate class were present,—probably the largest assemblage of the kind ever seen in the world,—with intelligent joy beaming from all their faces, and gratitude displayed in their animated and expressive language of signs. What a striking contrast to the little group of seven pupils, ignorant, lonely, and disconsolate, who gathered in the same place a little more than thirty-four years before, at the first formal opening of the Asylum, on the 15th of April, 1817! Surely, peace and benevolence have their victories no less than war. Of a truth, 'the wilderness and solitary places have been made glad by the breaking out of living waters, and the desert rejoiceth and blossoms as the rose,—the ransomed of the Lord have returned with songs and everlasting joy upon their head.'

The testimonial, which originated with Mr. Thomas Brown of New Hampshire, one of the earliest and most intelligent of the pupils of

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* The material, and much of the language of this article are drawn from Barnard's Tribute to Gallaudet, and Prof. Rae's Account of the Monument, in the Annals for October, 1854.

the Asylum, who said in the graphic language of signs, "that his spirit could not rest until he had devised some method of giving expression to the grateful feeling which filled his heart," and was eagerly seized and made the common property of all the graduates and pupils of the Asylum, consisted of a massive silver pitcher for Mr. Gallaudet, and another, of the same size for Mr. Clerc,—each pitcher being accompanied by an appropriate salver.

Upon one side of the pitcher is an engraved scene, representing Mr. Gallaudet's going to France in the year 1817, to induce Mr. Clerc to come to America to instruct the deaf and dumb. There are figures of the gentlemen, and ships and waves illustrating the passage across the ocean. The building of the Hartford institution is likewise represented. On the other side is seen a picture of the interior of the school; with teachers, and pupils, and apparatus. In front and between these scenes, is the head of the Abbé Sicard, of Paris, the instructor of Messrs. Gallaudet and Clerc, and said to be a correct likeness. On the neck of the pitcher are chased the different coats of arms of all the New England states; and on the handle are representations of mute cupids, and also closed hands, indicating the sign of the mutes for the first letter of the alphabet.

The inscriptions are as follows. On the pitcher destined for Mr. Gallaudet, was engraved: —

PRESENTED TO
REV. THOMAS H. GALLAUDET,
FIRST PRINCIPAL OF THE AMERICAN ASYLUM,
AS A TOKEN OF GRATEFUL RESPECT,
BY THE DEAF MUTES OF NEW ENGLAND.
MOVED BY COMPASSION FOR THE UNFORTUNATE DEAF AND DUMB
OF HIS COUNTRY, HE DEVOTED HIMSELF TO THEIR
WELFARE, AND PROCURED FOR THEM THE
BLESSINGS OF EDUCATION.
HARTFORD, CONN., SEPT. 26TH, 1850.

On the salver: —

TO REV. THOMAS H. GALLAUDET,
FROM HIS FRIENDS, THE DEAF MUTES OF NEW ENGLAND.
HARTFORD, CONN., SEPT. 26TH, 1850.

The addresses and other exercises on the occasion of presenting these testimonials were intensely interesting. Well might Mr. Gallaudet say that he should think of that day "as standing out with a strong and memorable prominence among the days of his earthly pilgrimage, and of his former pupils with a father's love." And that love was reciprocated by his pupils with truly filial respect and affection, which was exhibited in a signal manner on his decease.

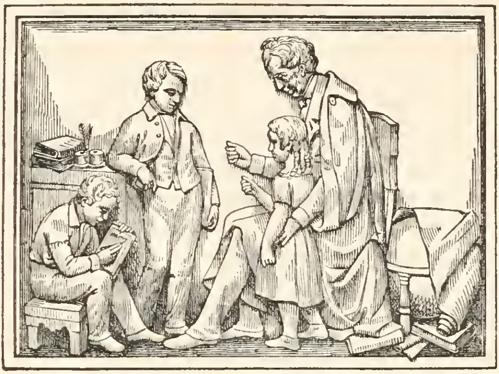
He had ever been regarded by them as their best friend and benefactor, and when his death was announced, a sadness and gloom pervaded their whole community, such as is felt when a beloved father dies. They were not satisfied with the ordinary badges of mourning and the usual testimonials of respect for their departed preceptor and guide. Their feelings prompted them to perpetuate his memory, and their own sense of his worth, in a more enduring and costly monument. In this work of gratitude and affection their hearts were united as the heart of one man, and their hands put to it bearing offerings for its accomplishment, which if not commensurate with their zeal and interest, were yet limited only by their ability to do and to give. As the plan and design were wholly their own, which they felt unwilling to have modified even by more gifted minds and cultivated tastes, so the embodiment of them was effected by their unaided contributions; not a dollar having been received from any hearing and speaking person.

The credit of the general plan of the structure is due to Mr. Albert Newsam, of Philadelphia, a former pupil of the Pennsylvania Institution, and one of the most skillful engravers and lithographers in the United States. The sculptured group on the south panel was designed by Mr. John Carlin, of New York, a deaf mute artist of growing skill and reputation. The execution of the work, after having been approved by a committee of the Gallaudet Monument Association, composed exclusively of deaf mutes, and formed for this special purpose, was committed to Mr. James G. Batterson, of Hartford, and his sculptor, Mr. Argenti.

Both in design and execution, this is undoubtedly one of the most beautiful monuments of its kind, in the United States; worthy of the noble name which it is raised to honor. Its whole cost was about *two thousand and five hundred* dollars; which was contributed exclusively by the deaf and dumb, over six hundred being able to say that, "I helped to bring into being that beautiful work of art, and of gratitude."

The monument stands in the grounds of the American Asylum, nearly in front of the center building, and consists of, first, a *platform* of Quincy granite, six feet ten inches square, and ten inches thick—the *plinth* is also of granite, six feet square and one foot thick—the marble *base* is five feet three inches square, and eighteen inches thick, richly moulded—the *die* consists of four panels; the south one containing a bas-relief, which constitutes altogether the most attractive feature of the monument.

Mr. Gallaudet is represented in the act of teaching little children the manual alphabet. Three children are presented, two boys and one girl, and the execution of their faces and forms is very beautiful. The artist has succeeded remarkably well in transferring to the stone the features of Mr. Gallaudet, and the expression of his countenance.



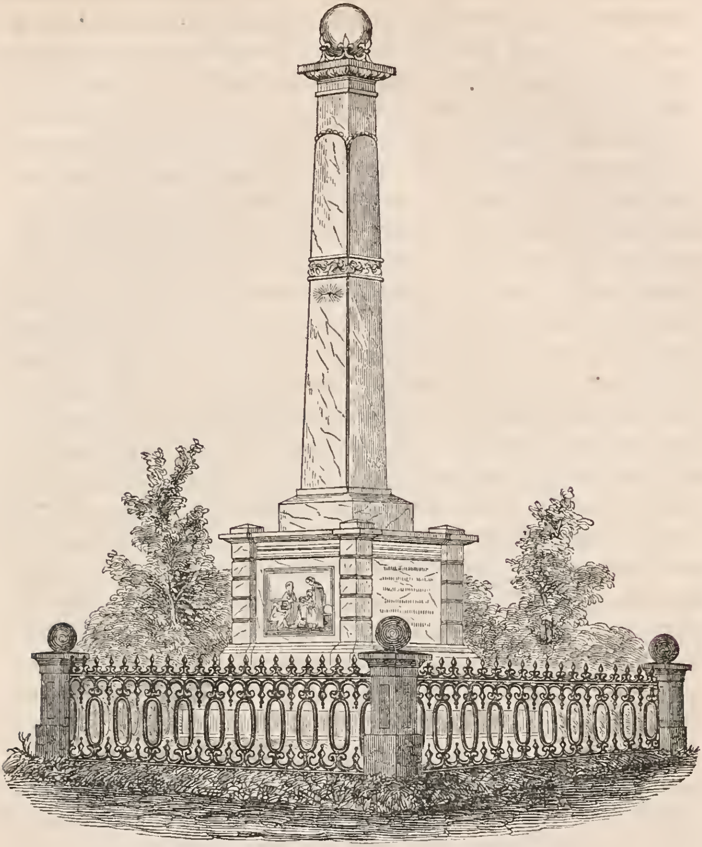
On the north panel, the name GALLAUDET, in the letters of the manual alphabet, is inscribed in bas-relief. On the east panel is the following inscription: —

THOMAS HOPKINS GALLAUDET, LL. D.,
BORN IN PHILADELPHIA,
DECEMBER 10, 1787,
DIED IN HARTFORD,
SEPTEMBER 10, 1851,
AGED SIXTY-FOUR YEARS.

And, on the west panel, is the following: —

ERECTED TO THE MEMORY OF
REV. THOMAS HOPKINS GALLAUDET, LL. D.,
BY THE DEAF AND DUMB
OF THE UNITED STATES,
AS A TESTIMONIAL
OF PROFOUND GRATITUDE
TO THEIR
EARLIEST AND BEST FRIEND
AND BENEFACTOR.

The *die* is surmounted by a *cap*, upon which rests the *base* of the *column*, which is two feet six inches square, the column rising to the height of eleven feet. Upon the south side of the column, surrounded by *radii*, is the Syriac word "Ephphatha,"—that is, "be opened;" which was spoken by our Saviour when he caused the dumb to speak, and the blind to see. The *band* which connects the two blocks of the



main column, is encircled with a wreath of ivy, the type of immortality; and the column itself is crowned with an ornate *capital*, surmounted by a *globe.* The whole height of the monument is twenty feet and six inches. It is inclosed with a handsome iron fence, with granite posts.

The celebration of the completion of the Gallaudet Monument took place on the 26th of September, 1854, by appropriate exercises and addresses. The principal address was by Prof. Laurent Clerc, which embraced a sketch of the life, services, and character of Mr. Gallaudet, and a history and account of the monument. This was followed by remarks from the Mayor of the City of Hartford, Hon. Henry C. Deming, who married a daughter of Prof. Clerc; by Mr. John Carlin, a deaf mute of New York; by Prof. C. C. W. Gamage, a deaf mute of the New York Institution; by Rev. Thomas Gallaudet, rector of St. Ann's Church, for deaf-mutes, in New York; by Mr. Thomas Brown, of Henniker, N. H.; by John O. David, of Amherst, N. H.; and, by his Excellency, Henry Dutton, Governor of Connecticut.

There were present on that occasion three hundred and ninety deaf mutes whose names were entered, from sixteen different States, and educated in seven different Institutions. The oldest person was sixty-nine years of age, having finished his studies in Paris in 1805. One hundred and fifty of them were married. Forty-five husbands were present with their wives, thirty-one others whose deaf-mute partner was either absent or dead, and twenty-nine whose partner could hear and speak. Of the one hundred and five families represented, seventy-one had children, amounting in all to one hundred and fifty-four. All of these children could hear except eight, and they belonged to five different families. In three of these families there was one hearing and one deaf child; in another, two deaf children; and, in the other, three deaf ones. The parents of these children were all deaf-mutes. About five per cent. of all the children were deaf-mutes, and the same proportion of families had deaf-mute children in them. Of one hundred and ninety-three men present whose occupation was ascertained, one hundred and thirty-five were mechanics, thirty-six farmers, eight teachers, seven artists, four clerks, two laborers and one merchant. From their appearance, the account given of themselves, and information obtained from others, there was good reason to believe that they were supporting themselves and families in a respectable and comfortable manner. The Governor of Connecticut, after having surveyed the assembly from the elevated platform occupied by the orator of the day, said in a few closing remarks, that he had rarely addressed an audience of equal size, exhibiting the appearance of superior intelligence and respectability. The meeting will long be remembered by them as a bright day in their calendar. The joyous recognition of old friends after a long separation; the renewal of early friendships; the interchange of sympathy at the recital of past sorrows and trials, of congratulation upon the detail of success and good fortune; and especially the satisfaction expressed and felt by all at seeing the great desire of their hearts so happily accomplished, conspired to make the occasion one of surpassing interest, and one which they will never cease to call up among the bright visions of the past.

Well may the Directors of the Asylum conclude their Thirty-ninth Annual Report, after noticing the above assemblage, and the prosperity of the Asylum, with the following reflections:—

We cannot forbear speaking of the progress of this branch of benevolent effort, since its introduction into this country, thirty-eight years since, by Mr. Gallaudet. Previous to that time, there was not an educated deaf mute in America; now, we rarely meet with one uneducated. Then, there was not an institution for the deaf and dumb in the whole of the United States; now, they are widely diffused over every section of the country. The little school opened in Hartford, in 1817, under much concern and doubt as to its receiving patronage and support, and with the full conviction that no other similar establishment would be needed, is now firmly seated upon a broad foundation; liberally endowed, patronized by the Legislatures of the six New England States, with more than two hundred pupils, and is the mother of fifteen hopeful daughters, who, together, are at this time dispensing the blessings of a Christian education to more than twelve hundred deaf mutes. Several thousands have been sent out from these institutions, more or less thoroughly educated, who are supporting themselves comfortably by their own efforts, and are maintaining respectable positions in society; while, of them all, very few indeed can be found among the degraded and the vicious. This great and good work has, by the blessing of a gracious Providence, been effected within the time of a single generation.

As an appropriate and enduring monument of Mr. Gallaudet's far-reaching labors, we append Plans and Descriptions of the Building erected for the accommodation of the American Asylum for the Education of the Deaf and Dumb, furnished by Rev. William W. Turner, the present Principal, together with a Table, exhibiting, in one view, the growth and present condition of all the institutions of this character in the United States. We are indebted for this table to Prof. Samuel W. Porter, editor of the American Annals for the Deaf and Dumb.

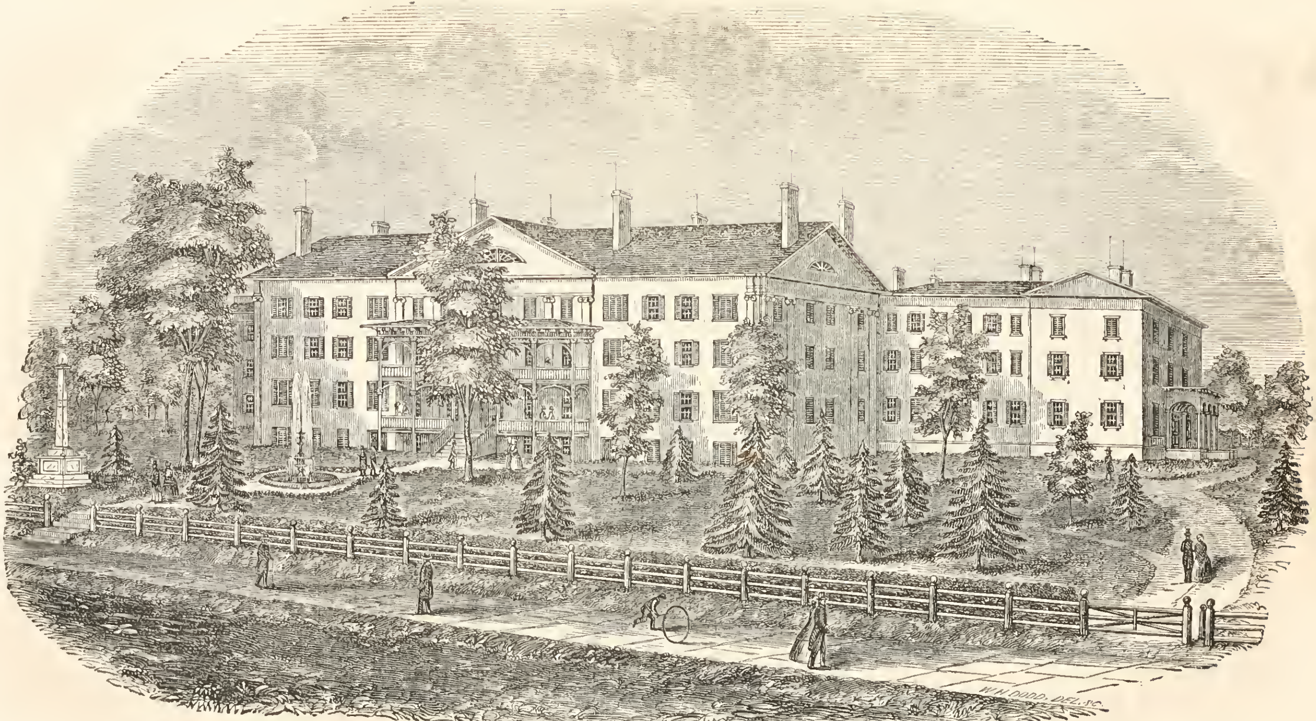
DIRGE.

Paraphrase of COLLINS' "How sleep the brave!"

BY REV. THOMAS H. GALLAUDET, LL. D.

How sleep the good! who sink to rest,
With their Redeemer's favor blest:
When dawns the day, by seers of old,
In sacred prophecy foretold,
They then shall burst their humble sod,
And rise to meet their Saviour—GOD.

To seats of bliss by angel-tongue,
With rapture is their welcome sung,
And, at their tomb, when evening gray
Hallows the hour of closing day,
Shall Faith and Hope awhile repair,
To dwell with weeping Friendship there.


W. H. DODD, DEL. SC.

AMERICAN ASYLUM FOR THE EDUCATION OF THE DEAF AND DUMB, HARTFORD, CT.

PLANS AND DESCRIPTION OF THE AMERICAN ASYLUM FOR THE EDUCATION OF THE DEAF AND DUMB.

The Asylum for the education of the Deaf and Dumb, situated in the western part of the city of Hartford, was founded in the year 1817. For the first four years its pupils were lodged and taught in hired rooms on Main and Prospect streets. The centre building in this view was erected on grounds, purchased in July, 1818, at a cost of about $24,000. It is 130 feet long by 53 wide, and was designed to accommodate 150 persons. The Superintendent with his family, and the pupils, fifty-four in number, removed into it in April 1821. At that time the basement was unfinished, and the attic was not occupied. Changes in the interior arrangements of the building were made from time to time as the increasing number of pupils required; the basement was finished and fitted up as a kitchen, wash-room, and dining-room, in 1826, at an expense of $1,823.

For some years there was no mechanical department in the Institution, though the need of one was understood almost from the beginning. In 1823, two neat and commodious workshops of brick were erected in the rear of the main edifice, and at some distance from it at a cost of $1,011. In these were employed a shoemaker, a cooper, a cabinet maker, and a cutler to instruct such of the boys as were of suitable age, in their respective trades. In 1825 the workshops were enlarged to accommodate all those of the pupils who wished to engage in mechanical labor. This improvement cost 745 dollars. The next addition to the buildings of the Asylum was that of a kitchen and dining room put up in 1833 in the rear, and adjoining to the main building, as seen on the ground plan. It was 56 feet long when first built, 32 feet wide, and two stories high. The cost was about $3,500. In 1846 this building was lengthened 17 feet, for which was paid the sum of $600, and in 1850 it was raised another story, and a lodging room for the girls was made over the dining room, connected with their sleeping rooms in the principal edifice. This last improvement cost about $2,500.

The number of pupils had so increased in 1844, that they could not be comfortably disposed of in the buildings then belonging to the Institution. It was thought best to erect a building which should contain all the school-rooms and the chapel. The west wing was accordingly constructed at an expense of $8000. It is of brick, three stories high, 60 feet long, and 50 feet wide, containing nine school-rooms, a chapel, and a museum. Removing the school-rooms from the main building, made important changes in its interior arrangements necessary. These were effected, and the building thoroughly repaired. Since then no change has been made in these arrangements.

In 1849 one of the workshops was taken down and a much larger and better one was built in its place. It was two stories high, 115 feet long, by 30 feet wide. A part of the upper story was fitted up for a tailor's shop. The remainder, with the whole of the first story, was arranged for cabinet making.

The verandah, as seen in the front elevation was constructed in the year 1852, and cost $943.

In order to separate the quite young pupils from the older ones, and to accommodate the entire number, over 200 at that time, the east or right wing was erected at a cost of about $15,500. To make room for this addition, the old Scarborough mansion-house which was on the ground when it was purchased, and which had been occupied by the Principal for many years, was torn down. The new wing is 70 feet long by 53 feet wide, and contains rooms for the family of the Principal, for the female teachers and an assistant matron; lodging-rooms, sitting-rooms, and school-rooms for the younger pupils, and several finished rooms in the basement, not yet occupied. Though the buildings were erected at different times as they were needed, not in conformity with any original plan, still they present a very good appearance, and afford as many conveniences as will be found in public institutions generally. They are warmed by ten hot air furnaces, are well lighted with gas; and in addition to wells and cisterns, have water forced into the attic story by means of hydraulic-rams. The present buildings will accommodate about 250 pupils.

The American Asylum has a permanent fund of $250,000, realized out of the grant of a township of land by the Congress of the United States in 1819. The institution is open to pupils from all parts of the United States.

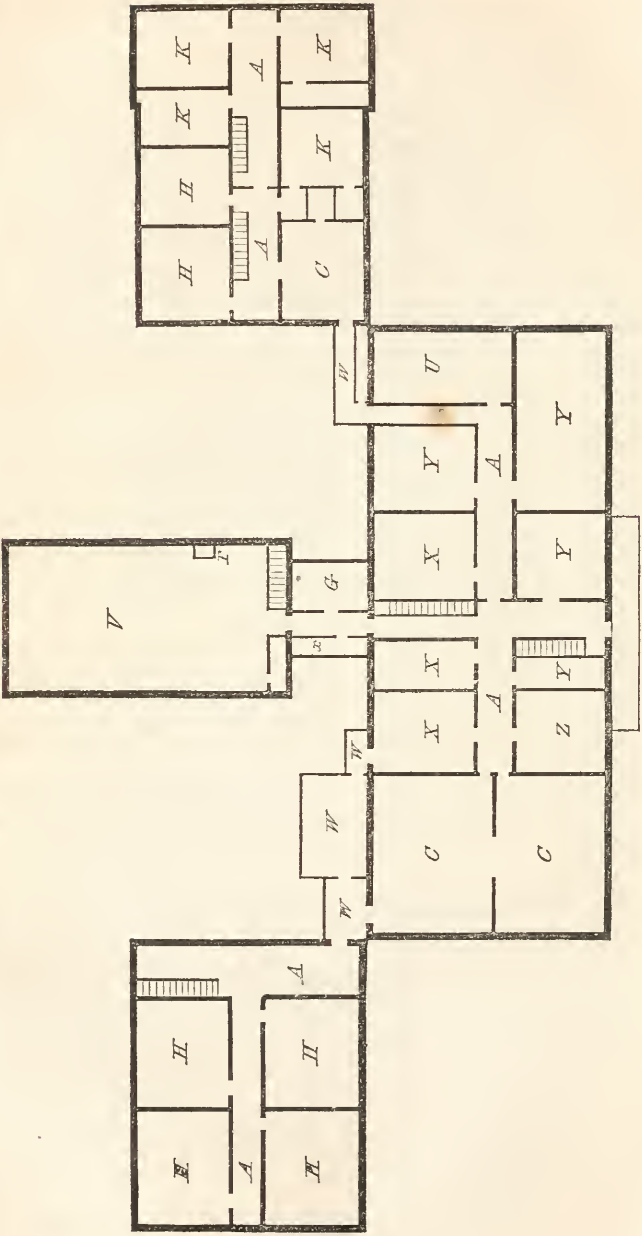


Fig. 3. Second Floor.

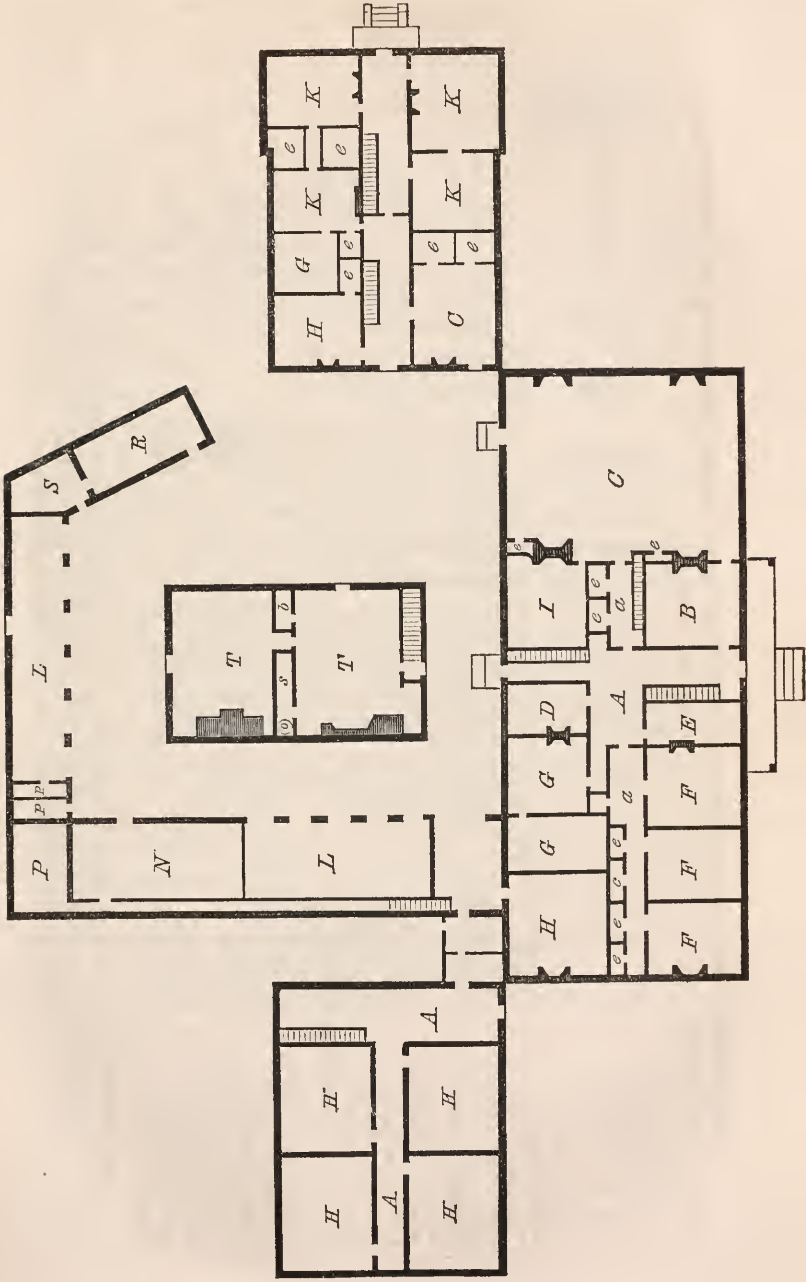

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TABLE.—GENERAL VIEW OF INSTITUTIONS FOR THE EDUCATION OF THE DEAF AND DUMB IN THE UNITED STATES.

Names.	Locations.	Cost of Buildings and Grounds.	Date of Opening.	Date of Latest Information.	Number of Pupils.	Number of Males.	Number of Females.	Number of State Beneficiaries.	Annual Amount received from States.	Annual Current Expenses.	Charge to Paying Pupils.	Names of Principals.	Number of Instructors, including Principal.	Number of Instructors who are Deaf-mutes.	Number of Graduates.
American Asylum,........	Hartford,........	$65,000	1817	1855	217	117	100	190	$16,312	$32,500	$100	Wm. W. Turner,.	14	5	1,019
New York Institution,......	New York,......	400,000*	1818	1854	279	157	122	239	45,000	50,000	130	Harvey P. Peet,..	14	6	1,142
Pennsylvania Institution, ...	Philadelphia,.....	105,000	1820	1855	155	83	72	136	21,106	25,000	160	A. B. Hutton, ...	9	3	686
Kentucky Institution,.......	Danville,........	60,000	1823	1855	81	41	40	70	9,000	9,500	105	J. A. Jacobs,....	6	3	250
Ohio Institution,..........	Columbus,........	25,000	1829	1855	148	75	73	147	15,000	19,000	100	Collins Stone,....	9	3	466
Virginia Institution,*	Staunton,........	65,000	1839	1853	66	36	30	...	13,333	14,000	130	J. C. M. Merillat,.	6	4	98
Indiana Institution, ...	Indianapolis,......	100,000	1843	1855	151	90	61	140	20,000	20,800	100	Thomas McIntire,.	9	3	190
Illinois Institution,.........	Jacksonville, ...	60,000	1846	1854	99	59	40	88	11,000	12,000	100	Thomas Officer,..	6	2	89
Tennessee Institution,......	Knoxville, ...	30,450	1845	1855	60	29	31	59	9,000	9,300	130	H. S. Gillet, ...	4	...	29
North Carolina Institution,..	Raleigh, ...	....	1845	1850	45	...	...	...	....	....	....	Wm. D. Cooke,..	3	2	.....
Georgia Asylum, ...	Cave Spring,.....	6,000	1849	1855	39	21	18	31	7,000	7,783	175	O. P. Fannin,....	2	1	25
South Carolina Institution, ..	Cedar Spring,....	6,000	1849	1854	30	15	15	26	5,000	....	150	N. P. Walker, ...	5	3	7
Louisiana Institution,*	Baton Rouge, ...	128,000	1852	1855	40	...	...	...	9,500	....	150	J. S. Brown, ...	3	2	.....
Missouri Institution, ...	Fulton, ...	36,000	1853	1856	69	...	...	...	13,000	....	....	Wm. D. Kerr, ...	4	2	.....
Wisconsin Institution,......	Delavan, ...	9,000	1853	1855	34	25	9	33	6,000	....	100	Louis H. Jenkins,.	4	3	.....
Michigan Asylum,*	Flint, ...	18,000	1854	1855	19	13	6	15	....	....	....	B. M. Fay,......	2	...	.....
Iowa Institution,..........	Iowa City, ...	....	1854	1855	20	...	...	...	5,000	....	....	Wm. E. Ijams,...	...	...	.....
Alabama School,..........	Near Montgomery.	....	1852	1854	...	...	...	...	5,000	....	....	....	...	...	.....
Mississippi School.........	....	....	....	....	...	...	...	...	....	....	....	....	...	...	.....

The data of the above Table are drawn from authentic sources; but, in some cases, the precise figure could not be ascertained.

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* This Institution receives blind as well as deaf and dumb pupils. The number and other items given are for the deaf and dumb only.

† Sixteen of these beneficiaries of the New York Institution are supported by the City of New York.

III. MAGNITUDE OF THE EDUCATIONAL INTEREST OF THE UNITED STATES.

We commenced in the preceding number (for March) the publication of a series of Statistical Tables and Summaries, made up from official documents, for the purpose of bringing together, in a condensed form, the principal elements for estimating the magnitude of the Educational Interest of the American States, to the advancement of which the Journal of Education will be exclusively devoted.

In the former article we gave —

I. A table exhibiting the population and territory of the several American States; a population already amounting to 62,000,000, and a territory capable of sustaining a population many fold larger, and which is filling up with unprecedented rapidity. The educational institutions and agencies of nearly all the American States are yet to be framed, or greatly improved.

II. Tables exhibiting the rapid growth in population of the several States of the Union from 1790 to 1850, with the juvenile population in each, for which educational institutions and agencies must be provided; institutions and agencies which must be rapidly increased and improved to meet the wants of the rapidly increasing population.

III. A table presenting the Educational Statistics of the several States, as gathered under authority of Congress, in 1850, viz.: the number of Colleges, including professional and other schools of Superior Education, the number of teachers, and pupils, and annual income; the number of academies, and institutions of Secondary Education, their teachers, pupils, and annual income; the number of Public or Elementary Schools, their teachers, pupils, and income; together with the whole number of persons returned as at schools of some kind on a particular time, and also during the year, and the number of the adult white population who had not received even the lowest degree of school instruction, to enable them to read the printed constitution and laws of the country, or write the vote they may cast into the ballot box. Although not minutely accurate, the results exhibited in this table afford the basis of comparison between the several States, and suggest the direction in which the labors of statesmen and education must be vigorously put forth.

IV. A table showing the extent to which books are collected into Libraries of various kinds; by which those important instrumentalities of self-education, those store-houses of the garnered wisdom of past ages, and those sources of rational enjoyment, are within reach of all classes in the several States.

V. A table exhibiting the number of libraries and volumes in the principal states, cities, and universities of Europe; by which the amazing deficiencies of even our best college and public libraries can be seen at a glance, and at the same time the advances made by several of the States of our own country in the dissemination of books by means of Sunday School, and District School Libraries, can be seen.

VI. Summaries, in which the most important Statistics of the principal educational institutions of the several States are given, viz.: the prospective as well as the present available funds appropriated to educational purpose; and, the condition of the Common or Public Schools, Normal Schools, Reform Schools, and Special Schools for the education of deaf-mutes, blind, and idiotic persons—of all schools supported wholly or partly by tax, or the income of public funds, and responsible to the Legislatures of the several States.

Under this head we had proceeded in alphabetical order through fifteen of the thirty-one states, commencing with Alabama, and closing with Massachusetts.

We shall now resume these Summaries, commencing with the State of Michigan.

VII. Statistics and Suggestions gathered from late official reports on the public schools of several of the largest cities in the country, to show the magnitude of their educational interest, and the manner in which some of the difficult problems in public education are solved.

VIII. A table of the Population of the principal cities and towns in the several States, with the rate of increase in each, to show at once, in the large and compact population, the facilities enjoyed for an efficient system of public schools, and the necessity of constant enlargement in the means provided for the increasing number of children.

IX. Table exhibiting the number of deaf and dumb, blind, insane, and idiotic persons of each class of the population in each State.

X. Statistics of Newspapers and the Periodical Press.

We shall in a subsequent number present other statistical tables and summaries, drawn from official documents, particularly such as will exhibit the amount of pauperism and crime in the several states.

VI. SCHOOL FUNDS AND INSTITUTIONS OF EDUCATION

SUPPORTED WHOLLY OR PARTLY BY PUBLIC FUNDS.

[*Continued from page* 380.]

MICHIGAN.

Educational Funds. The State received from Congress a grant of 1,067,397 acres of land for common school purposes, and of 46,000 for a university. Out of the former a fund of $1,493,653 has been realized, and of the latter, $431,177. The State has also set apart lands for a normal school fund, which have already neted $64,222, and for an asylum for deaf mutes and blind, which already net $29,553. A large portion of these various lands are yet unsold.

Common or Primary Schools. Number of whole districts in the State, 2,550; fractional districts, 1,115; number of districts making reports, 3,095; number of children in the State, in districts where schools are taught, 173,117; whole number of children attending school, 129,517, of whom 2,290 were under four years and 6,224 above 18. Amount of school money apportioned upon the basis of the number of children residing in the districts between 4 and 18, $130,996.69; amount raised by districts, $156,916.90; amount raised by rate-bill, $63,763.43; amount paid teacher's wages, $237,827.15; volumes in township libraries, 121,201; two-mill tax collected for school and township libraries, $67,179.55; amount received from fines, &c., for township libraries, $2,457.80.

State Normal School at Ypsilanti. Established in 1850, and went into operation in 1853. The citizens of Ypsilanti contributed $13,500 toward the expense of the building. There were in 1855, 200 pupils.

State Asylum for the Deaf Mutes and Blind at Flint. Established in 1848 and opened in 1854. The buildings, when complete, will accommodate 350 pupils. There were in 1854-5, 19 deaf and 4 blind pupils.

MISSISSIPPI.

Educational Funds. The State received 837,584 acres of land for common schools, and 23,040 acres for a university. Each township has a school fund arising from the lease of lands granted by Congress for common school purposes, every 16th section in each township having been so granted. These lands are leased for various periods, but mostly for ninety-nine years. The money thence arising is loaned annually at not less than 8 nor more than 10 per cent. per annum interest. This interest is the amount applied to tuition, &c., annually from the township fund. There is also a county fund, arising from fines, forfeitures, licenses, &c., which is distributed in those townships that are destitute or have but a small school fund. The school sections in some townships are worth many thousand dollars, and in others only a few hundreds. Hence great inequality in the funds of the townships, and the necessity of the above method of distributing the county funds.

Common Schools. There is no uniform system of common schools for all the counties, and no annual returns are made to the legislature. According to a distribution of $300,000 to the several counties in 1852, there were 91,251 children of a school age.

State University at Oxford. A recent application to the legislature for aid has been successful, and the annual appropriation to the use of the University has been increased to $30,000.

State Institution for the Blind at Jackson. Of this institution we have no returns.

State Institution for Deaf Mutes at Jackson. Of this institution we have no returns.

MISSOURI.

Educational Funds. The State received 1,199,139 acres of land for common schools, and 23,040 for a higher seminary. The present available School Fund, state and township, is $1,275,657, and of the Seminary Fund, $100,000. The State appropriates one-fourth of its annual revenue for educational purposes. The school lands of St. Louis are valued at $912,285.

Common Schools. There were reported in 1853, 233,327 scholars between the ages of 5 and 20, of whom 80,605 were in organized school townships. For 1854 reports were received from 65 counties. Number of children between 5 and 20, 202,658; number taught within the year, 67,924; average attendance at schools the whole term they were kept, 20,874; whole number of teachers, 1,780, 1,416 males and 364 females; paid for teachers' wages, $212,138; paid teachers from common school funds, $131,456; number of common schools, 1,546; of district libraries, 1,117; money raised for building or repairing school-houses, $29,034; revenue school moneys appropriated to each child, 92 cents; bank dividends so apportioned, 42 cents.

State Asylum for Deaf and Dumb at Fulton. Institution was opened in 1851. In 1854 there were 64 pupils. State appropriates $2,000 for its annual expenses.

State Asylum for Blind at St. Louis. Established in 1851. State appropriates $3,000 annually for the indigent blind. 14 pupils.

NEW HAMPSHIRE.

Educational Funds. This State has a small permanent School Fund of $16,435.

Educational Statistics. The following were the statistics of education in 1854.

Number of persons in the State, pursuing education in the schools, during the past year:

Dartmouth College,	294
Incorporated academies,	2,919
Unincorporated academies and private schools,	4,720
Common Schools,	84,900
Total number,	92,833

Being 1 in every 3, 42-100 of the whole population.

Amount of money applied for the purposes of instruction:

Dartmouth College,	$13,560
Incorporated academies,	23,514
Unincorporated academies and private schools,	16,173
Amount raised by taxes for common schools, about	200,000
Amount raised for teachers' institutes,	4,500
Amount of literary fund, about	14,000
Total amount,	$271,747

Number of schools:

Colleges,	3
Incorporated academies,	47
Unincorporated academies and private schools,	46
Common school districts,	2,300
Total number,	2,396

Common Schools.—Number of districts, 2,236. Number of pupils in winter, 66,209; in summer, 57,956. Length of winter schools in weeks, 9.85; of summer, 9.74. Average monthly wages of male teachers, exclusive of board, $17.38; of female teachers, $7.83. Number of male teachers in winter schools, 1,098; of female teachers, 1,156. Whole amount raised for district schools, $231,434.

NEW JERSEY.

Educational funds. The available school fund, January 1, 1855, was $401,304.34. There is, besides, due the school fund, but unavailable, the sum of $11,169.85. The receipts of the fund during the year, including balance of cash, January 1, 1854, were $53,514.62. By the School Act of 1851, $40,000 are appropriated to the use of schools from the school fund, and $40,000 from the State treasury, which sum of $80,000 is apportioned among the counties upon the basis of population.

Common Schools. The statistics of the schools for 1854 are as follows: Number of townships in the State, 190; number of townships making returns, 164; number of districts in those townships, 1,426; returns received from 1,377. Children between 5 and 18, 168,031; children attending school 3 months or less, 25,380; 6 months, 26,958; 9 months, 24,968; 12 months, 26,658; number over 18 years of age who attended school, 1,076; colored children taught, 2,384; whole number of children taught, 105,040. Average length of schools in months, 8¾; average price of tuition per quarter to each pupil, $2,08. Amount raised by tax to support schools, $210,023.44; received from the State, $85,250; from other sources, $42,756.92; amount raised in addition for building, repairing, and furnishing school-rooms, $44,925.99; total amount appropriated for school purposes, $388,571.86. Whole number of teachers, 1,981,—1,201 males and 780 females. Salary of males per annum, $347; of females, $203. Eight teachers' institutes have been held during the year, at which 356 teachers attended. Teachers' associations are also held quarterly in the counties where they exist. The Superintendent speaks of the experiment of teachers' institutes in this State as being "signally successful."

State Normal School. The legislature in 1855 established an institution for the education of teachers for the common schools, and appropriated $10,000 a year for five years for its support. The school is located at Trenton, with W. F. Phelps for Principal.

The Deaf and Dumb. The Legislature provides for the indigent deaf and dumb children in the institution in New York, at an expense of about $5,000 a year.

NEW YORK.

Educational Funds. The amount of capital and annual revenue of the several funds appropriated to the purposes of education, for the year ending September 30, 1854, was as follows:—

	Capital.	*Revenue.*
Common School Fund,	$2,425,211.97	$514,994.87
United States Deposit Fund,	4,014,520.71	286,949.77
Literature Fund,	268,620.12	52,433.68
	$6,708,352.80	$854,378.32

Of the funds devoted to education, what was exclusively the Common School Fund in 1854, may be stated as follows:

Productive capital of the Common School Fund,	$2,425,211.97
Amount from United States Deposit Fund which will produce $165,000, the sum annually appropriated therefrom for the support of common schools, at six per cent. interest,	2,750,000.00

Amount from same fund which will produce at six per cent. $25,000 annually, that being the sum reserved by the constitution to be added annually to the capital of the School Fund, . .	$416,666.67
Making a total of	$5,591,878.64

The annual interest on this sum, at six per cent. is $335,512. The balance of the income of the United States Deposit Fund is appropriated to the support of colleges, academies, the normal school, Indian schools, teachers' institute, &c. The income of the Literature Fund, must, by the constitution, be applied to the support of academies.

The whole amount of public money received from all sources by the commissioners of cities, and town superintendents, during the year ending July 1, 1854, was $1,656,993.37. Apportioned for teachers' wages, $1,316,935.11; for libraries, $47,654.06. Leaving a balance for contingent expenses, &c., of $292,404.20. The amount of taxes levied during the year, for purchasing school-houses, was $44,995.07; for building do. $290,283.89; for hiring do. $11,139.57; repairing do. $102,095.24; insuring do. $3,991.10; fuel, $98,812.08; books, apparatus, &c., $11,414.76. The amount paid for teachers' wages, beside public money, was $285,365.25. Aggregate expenditures for school purposes during the year, $2,666,609.36.

Common Schools. The statistics of the common schools for the year 1854, were as follows: Whole number of districts, the school-houses of which are situated within the town, 11,798. Number of whole districts in the State, 8,855. Number of parts of districts, 5,875. Returns were received from 8,729 whole and 5,723 parts of districts. Average length of schools in all the districts, 8 months. Volumes in district libraries, 1,572,270. 877,201 children were taught during the year. 1,186,709 were returned between 4 and 21 years of age. 199,155 pupils attended school less than 2 months; 212,110 attended 2 months and less than 4; 177,957, 4 and less than 6; 128,206, 6 and less than 8; 71,193, 8 and less than 10; 42,174, 10 and less than 12; and 13,591 attended school for 12 months. There were 4,568 colored children between 4 and 21 in the 30 colored schools reported. $1,978.12 of public money were received on account of colored schools, and, besides public money, $1,360.38 were paid for teachers' wages. Number of unincorporated, select, and private schools reported in the districts, 1,501. Average number of pupils therein, 34,279. $1,000 are appropriated for the support and education of Indian youths at *farm-houses*, instead of schools, as formerly. 1,570 pupils had their tuition paid by the State, at academies in the expectation that they will become teachers. Teachers' institutes were held in 19 counties of the State.

State Normal School. The State appropriates about $12,000 a year for the State Normal School, at Albany. About 250 attend the normal school annually. In September, 1854, there were 250 pupils in the school, 64 males, and 186 females. The whole number of graduates is 780, 391 males and 389 females. In this school in 1852–53, 16 Indian youth, 15 males and 1 female, were taught to prepare them for teachers among their own people. Nearly every county in the State is represented in this school. The miscellaneous library consists of about 1,000 volumes and pamphlets; that of text-books of about 6,000 volumes. The expenses of the school for the year near $11,492.00.

Institution for the Deaf and Dumb, New York. Number of teachers, 12; number of pupils, Dec. 31, 1853, 278; left during the year, 43; admitted, 44; whole number Dec. 31, 1854, 279. Of these 203 were supported by New York; 16 by the city of New York; 20 by New Jersey; 32 by their friends; and 6 by the institution. The time of admission is the first Wednesday in September;

terms, $130 *per annum* for each pupil, clothing and traveling expenses excepted, to be paid semi-annually in advance, and satisfactory security for punctual payment of bills and clothing, which, if desired, is furnished at an additional charge of $30 a year. The receipts of the institution from all sources for the year 1854, were $49,982.16. Expenditures, including balance last year due the treasurer of $3,460.53, $52,367.71. Due the treasurer, $5,847.08.

Institution for the Blind, at New York. The State appropriates $22,004 a year toward the education of its indigent blind youth in the institution at New York.

Institution for Idiots, at Syracuse. This institution was opened at Albany in October, 1851, under the care of Dr. Wilbur, but in 1855 was removed to Syracuse, where a building had been erected at an expense, including the land, of $81,000. There are about 70 pupils.

Houses of Refuge and Reformation for Juvenile Criminals. There are two institutions for young criminals: one at Randall's Island, near New York, and the other at Rochester. For the two, the Legislature appropriated $112,000 in 1854. The institution at Rochester, on the 1st of Jan., 1855 had 263 inmates: 155 were received during the year; average age 13.33; 56 were American, 95 foreigners, and 4 colored. 109 were committed for petit larceny; 16 for grand larceny; 1 for rape; 18 for vagrancy. Of those who left during the year, 40 were indentured; 5 sent to sea on whaling voyages; and 50 discharged to parents and guardians. The boys work seven hours a day, and are at school three and a half hours.

Juvenile Asylum at New York. The legislature in 1854 appropriated $50,000 in aid of the establishment of an asylum for young offenders who had not been pronounced criminal by the courts. The school was opened in 1854, and has already received over 500 neglected and vicious children. A large and commodious structure near King's Bridge, is nearly completed for the accommodation of the institution.

NORTH CAROLINA

Educational Fund. In 1825 the State constituted a fund for the support of common schools, called the Literary Fund, out of the sales of the swamp lands, and of property which may escheat to the State. The present capital of the fund is $1,700,000. The income in 1854 was $128,000.

Common Schools. The present system was instituted in 1840, and in 1852, the office of Superintendent of Common Schools was created and filled by the appointment of C. H. Wiley. From his report for 1855, it appears that there were about 3,500 common schools with 150,000 pupils; 300 academies with 9,000 teachers; nine high schools or colleges for girls, and five colleges for males, with an aggregate attendance of over 1,000 students. The State appropriated $180,000, and $60,000 more were raised by local taxes. Pay of male teachers about $21, and of female teachers, $18 per month.

Asylum for the Deaf and Dumb and Blind at Raleigh. Instituted in 1848. State appropriates $1,000 annually in aid of indigent pupils.

OHIO.

Educational Funds. The school fund consists, (1.) of certain *trust funds*, the proceeds of lands originally given to certain districts of territory in the State, upon which the State pays the interest annually to the several counties in the proper district, according to the number of youth therein; (2.) of the *State Common School Fund*, which by the act of March 24, 1851, § 30, is made to consist of "the interest of the purchase-money of the Salt Lands; the balance of the Surplus Revenue Fund; the interest of the Surplus Revenue Fund paid by the counties; receipts from peddlers' licenses, from auction duties, from taxes upon lawyers and physicians, and upon banks and insurance and bridge companies; and of such taxes, to be levied by the General Assembly, as shall be sufficient, with the above revenues, to produce, for annual distribution, the sum of $300,000.'' The amount of the State School Fund apportioned to the several counties for the year 1854, in the ratio of the unmarried youth between 5 and 21 years of age,—being $1,377 each,—was $1,118,089.02; of interest on School and Trust Funds so apportioned, $112,463.65; of School District Library Fund so distributed, $55,904.45; of local expenditures, $980,000, making the whole amount of funds and property appropriated $2,266,457.12. The average rate per scholar paid for tuition out of the School Fund of 1854, was $2.07½.

COMMON SCHOOLS. Number of townships, corporations, or districts reported in the State, 1,504; of special districts, 207; of fractional districts, 162; of sub-districts, 11,203; number of white youth between 5 and 21 years, males, 414,519; females, 392,831; in all, 807,350; of colored youth, males, 4,919; females, 4,837; in all, 9,756; total youth, 817,106. Number of common schools, 10,330; number of teachers, males, 7,469; females, 6,413; number of white youth attending school, males, 244,089; females, 209,663; average daily attendance, males, 148,271; females, 125,171. Number of scholars who can read and write, 239,168. Total number of months of winter schools, 17,589; average length, 1.7 months; of summer schools, 13,028; average length, 1.3 months. Wages of teachers per month, males, $23; females, $13. Number of school-houses, 7,235; value of lots and furniture, $2,197,384; number built this year, 770; value $346,943.92.

HIGH SCHOOLS. Number, 57; number of teachers, male, 71; females, 63; average daily attendance, males, 2,258; females, 1,496. Number of months taught in winter, 122.5; average length in months, 2.15; number of months taught in summer, 84.25; average length in months, 1.48. Teachers' wages per month, males, $58; females, $28.50.

COLORED SCHOOLS. Number, 48. Number of scholars during the year, males, 1,265; females, 1,174. Monthly pay of teachers, males, $21.75; females, $19.

There are also 16 English and German schools.

ASYLUM FOR DEAF AND DUMB AT COLUMBUS. The Asylum was opened October 16, 1829, and since that time there have been 581 pupils. The number present, December 4, 1854, was 157, 81 males and 76 females. Of those who have been admitted into the institution, the causes of deafness ascribed by friends were congenital, 215; from accidental causes, 316. 413 were from families in which there was but one child deaf and dumb; 46 from families where there were 2; 33 where there were 3; 4 where there were 4; 1 where there were 5; and 2 where there were 6. The number who are known to have married since graduation is 59, of whom 42 married deaf mutes. Of these latter only one case is known where the child is deaf and dumb.

INSTITUTION FOR THE BLIND, COLUMBUS. The number, including graduates and assistants, in 1854, 66; of these, 60 were pupils. During the year there were 73 pupils in the institution, 38 males and 35 females.

PENNSYLVANIA.

COMMON SCHOOLS IN 1854. A system of popular education was attempted in Pennsylvania, and a common school fund established, in 1831. The State was not divided into districts for school purposes until 1834, and the act of April 1st, of that year is generally considered the first common school law. The act of May 8, 1854, revised the school laws of the State. By it the Secretary of State is continued to be, *ex officio*, the Superintendent of common schools, with the authority to appoint a deputy. The office of county superintendent is established, and it is made the duty of the officer, who is elected by the school directors of the several districts in the county for three years, to attend especially to the schools in the county, and to examine and give certificates to teachers. The school districts are put under the immediate care of the school directors, who report to the county superintendent. Teachers are required to report monthly to the directors and can receive no pay until such report is made. The districts for school purposes are made bodies corporate, with power to sue and be sued; to borrow money to an amount not exceeding one-half of one per cent of the assessed value of the real estate of the district, to purchase ground or build school-houses. The directors are required to establish in their districts separate schools for mulatto and negro children, when they can be located so as to accommodate twenty pupils; and when so established, and kept open four months in any year, the directors shall not be compelled to admit such pupils into other schools of the district. No district can receive its share of the State appropriation for any year, until its schools have been kept four months in such year. The directors and teachers in each district meet annually before the schools are opened, and determine the school-books that are to be used during the year, and no others than those thus selected can be used. The county superintendents are to report to the State superintendent in June of each year. There could be no report made for the year 1854, and the statistics of the schools for 1853 are therefore repeated. The whole number of school districts reported, exclusive of the city and county of Philadelphia, for the year ending June 30th, 1853, was 1,531. The whole number of schools was 9,507. The average number of months that schools were taught was 5. Number of male teachers, 7,590; number of female teachers, 3,640. Average wages per month of male teachers, $19.25; of female teachers, $12.03. Number of male scholars, 260,269; number of female scholars, 214,286; number learning German, 11,121. The average number of scholars in each school was 42; and the cost of teaching each scholar per month, 43 cents. The amount of tax levied in the accepting districts was $1,021,337.34; received from the State appropriation, including $31,307.30 paid to Philadelphia city and county, $184,390.27. The cost of instruction was $731,743.18; fuel and contingencies, $84,158.76; of school-houses, repairs, &c., $147,516.73. The number of taxables by the triennial return in 1853 was 645,164. The returns of over 100 districts are not included in the foregoing, as they were received too late. Since, and including 1844, the annual appropriation by the State for the support of schools has been $200,000.

Institution for the Blind, Philadelphia. The school was opened in March, 1833. Number of pupils, Jan. 1, 1855, 125,—66 males, 59 females. Of this number there are from Pennsylvania 93, Maryland 8, New Jersey 14, Delaware 6, all other places 4. Number of pupils from its foundation to Jan. 1, 1853, 237. Causes of blindness: opthalmia 74, amaurosis 32, cataract 20, congenital 18, small-pox 10, scarlet fever 6, other fevers 4, measles 6, accidents from stones, &c., 15, explosion of powder 12, pistol or gun-shot 5, accidents not stated 5, scrofula 3, hydrocephalus, arrow-shots and fire, 2 each, kick of a horse, foul air in a well, rheumatism, whooping-cough, polypus, acute iretus, irritable retina, neuralgia, 1 each, unknown 13. Value of goods manufactured during the year 1854, $8,368.85; sales $7,641.39. Expenses of the Institution, $32,475,48; receipts, $30,898.77. No secta-rian faith is inculcated. School, music, and work alternately occupy 8½ hours daily. The terms for pay pupils are $200 a year, including board instruction, and medical attendance. Blind children in indigent circumstances from Pennsylvania, New Jersey, Maryland, and Delaware are provided for by those States for 8 years.

House of Refuge, Philadelphia. Remaining, December 31, 1852, 149 boys and 49 girls in the white and 84 boys and 40 girls in the colored department; total 322. The institution is designed for the reform of juvenile delinquents. Most of the inmates are committed by magistrates, and a few by the county courts. The boys are employed in various manufacturing occupations. Their earnings amounted to $6,654.58. The expenses of the year were $87,912.78, and the receipts $87,064.13.

House of Refuge of Western Pennsylvania, Pittsburg. The charter of this institution was granted in April, 1850. The State then appropriated $20,000 toward the purchase of a site and the erection of buildings, and subsequently $20,000 more. $20,000 additional have been subscribed by five of the western counties, and 23,332.50 by individuals up to December 31, 1854. There had been expended for the site (eleven acres) $10,000, and for buildings, &c., $92,500. The institution was opened for the admission of inmates December 13, 1854, and is intended not only for those youth of the western counties of Pennsylvania, who have been convicted of crime or misdemeanor, but for those who, from their incorrigible or vicious conduct, are beyond the control of their parents or guardians.

Pennsylvania Institution for the Deaf and Dumb, Philadelphia. There were in the institution Dec. 31, 1854, 163; 93 boys, and 70 girls. Of these, 106 are supported by the State of Pennsylvania, 18 by Maryland, 11 by New Jersey, and 3 by Delaware. About 6 hours each day are spent by the pupils in the schools, and 3 hours by the males in the tailor's or shoemaker's shops. The females are instructed in sewing, and other branches of domestic economy. The expenses for the year were about $40,000.

RHODE ISLAND.

Educational Funds. The State has a permanent School Fund, actually invested, of $73,896.38. By an act passed in 1836, the interest of the State's part of the United States surplus revenue (commonly called the Deposit Fund) was set apart for public schools. $35,000 are annually paid from the State treasury for schools; and by the act of January, 1854, $15,000 were added to the annual appropriation. By an act passed in June, 1848, the proceeds of the militia commutation tax in each town are to be applied hereafter to the support of public schools.

Public Schools. The whole number of school districts in October, 1854, is 382, of which 42 are not organized; 297 districts own their school-houses; in 40 districts they are owned by the town; and in 41 by proprietors. There has been expended for school-houses during the last nine years, $319,293.07; during the last year, $7,348,57. Number of scholars in May, 1854, 25,868,—13,776 males and 11,811 females; average attendance, 19,894. Number of male teachers, 253; of female, 364. Amount received from the State, $35,000; amount raised by towns, $61,013; whole amount from all sources, $118,602.38. Expended for instruction, $103,049.

Normal School. A State Normal School was established by the legislature in May, 1854, and $3,000 a year are appropriated therefor. It is at Providence. Dana P. Colburn is principal. Teachers' institutes are annually held in different parts of the State, supported by the State.

Deaf Mutes, Blind and Idiots. The sum of $2,500 is appropriated for the education of indigent deaf mutes, blind, and idiotic persons. The State beneficiaries among the deaf and dumb, four in number, are sent to the American Asylum at Hartford; those of the blind, three in number, are sent to the Perkins Institution at South Boston. Four persons (up to January 1, 1853) have received the benefits of the State appropriation for idiots and imbeciles, two of whom are at South Boston, one at Barre, Mass., and one under the care of Mr. J. B. Richards, at Philadelphia.

Providence Reform School. This school was established in 1850, and was opened to receive inmates, November 1, 1850. From that date to November 30, 1854, there were committed, 293,—252 boys, 41 girls. There were in the school, November 30, 1854, 106,—92 boys and 14 girls; admitted during the year, 85,—73 boys and 12 girls. Discharged during the year, 70 boys and 10 girls. Of the 85 admitted during the year, 27 were committed for theft; 11 for assault; 8 for vagrancy; 24 for truancy; 4 for safe-keeping. 58 were born in the United States, and of these 43 were born in Rhode Island. 7½ hours in each day, except Sundays, are devoted to labor; 5 to school exercises; 2½ to meals and recreation; 1 to religious exercises; and 8 to sleep. Their labor has been employed in making such articles as are needed in the institution, and in housework. An arrangement is made by the State by which all juvenile delinquents may be sent to this school.

SOUTH CAROLINA.

Educational Funds. The State has no permanent Educational Funds, but makes liberal appropriations of money raised by tax, for educational purposes. In 1854, among the items of expenditure are $30,000 for Military Schools; $6,822 for Deaf and Dumb; $75,000 for Free Schools; $22,000 for South Carolina College; $400 for pupils of Orphan House at Charleston, at South Carolina College; $3,688 for Libraries; $20,000 for Medical College; $20,000 to College at Charleston.

Free Schools. The State appropriates annually $75,000 for the support of Free Schools. In some districts independent schools are set up, but in others the officers entrusted with the expenditure of the quota for a particular district, pay the tuition of a certain number of poor scholars, who are admitted into pay or private schools as beneficiaries.

Institution for Deaf and Dumb at Spartanburg. For many years this State sent her indigent deaf mutes to the American Asylum at Hartford. In 1849, Mr. N. P. Walker opened a private school with four pupils, near Spartanburg. The State pays at the rate of $150 for each of the twenty-six beneficiaries.

TENNESSEE.

Educational Funds. This State has a permanent School Fund of $1,346,068, made up of a bonus paid by several banks, the income of which amounts to about $113,000, and an academy fund, which yields about $18,000 a year.

Common Schools. There are no published returns of the condition of the schools, except the number of children between the ages of 6 and 21, which in 1851 was 288,454.

Asylum for Deaf Mutes at Knoxville. Established in 1845; has 40 pupils, and received $2,500 from the State.

Institution for the Blind at Nashville. Established in 1844; has 20 pupils, and receives $3,000 from the State.

TEXAS.

Educational Funds. One-tenth of all the revenues of the State are set aside for schools by the constitution, and by act of the legislature, to constitute a Gen eral School Fund, which now amounts to $150,000. $2,000,000 in United States Bonds, yielding at 5 per cent. $100,000 annually, are also appropriated to constitute a Special School Fund, besides liberal grants of land to the several counties The amount annually distributed is about $115,000.

Common Schools. There is no uniform or efficient system of common schools in operation. The number of children between the ages of 6 and 16 returned in 1854, was 127,128.

VERMONT.

Educational Funds. The State had set apart an accumulating fund in aid of common schools, which in 1845, amounted to $300,000, and in that year was abolished, and the sum, which had been before borrowed for that purpose, was appropriated to pay the State debt.

Common Schools. The office of State Superintendent of Common Schools has not been filled since 1851, and no returns of the condition of the schools has been made since that date. In 1851 there were 2,594 school districts; number of scholars, 90,110; average of wages paid male teachers per month, $13.55; average of wages paid female teachers per month, $5.54; whole wages for males, $65,759.16; for females, $61,312.65; number of weeks of schools by males, 19,360; by females, 43,238; whole wages to teachers, $127,071.81; cost of board, $70,492.87; cost of fuel, &c., $19,837.65; cost for wages, board, and fuel, $217,402.33; public money divided for support of schools, $90,893.91; average length of school during the year, 24 weeks; average of scholars per district, 39; expense per scholar, $2.20.

Deaf and Dumb and Blind. The indigent deaf mutes of the State are supported at the American Asylum at Hartford, and the blind at the Perkins Institution at Boston. Expense about $2,500 a year.

VIRGINIA.

Educational Funds. The State has funds for literary purposes, viz., 1. The *permanent* Literary Fund amounts to $1,964,162.49, from which deduct losses, etc., $376,141.85, which leaves an available capital of $1,588,020.64. With the exception of $24,324.82 in the treasury, this sum is invested and productive. The interest on this sum is $102,391.11, of which amount $75,000 were appropriated to primary and free schools for the poor, $15,000 to the University, and $1,500 to the Military Institute.

2. The *Dawson* Fund is a bequest for the support of free schools in Nelson and Albemarle counties, and now amounts to $39,016.04, and to this may be added $25,167.45 of unproductive capital. The net amount of interest received on the available capital for 1852, was $2,342.42, two-thirds of which are appropriated, according to the will of Mr. Dawson, to Albemarle and one-third to Nelson county.

3. The total resources of the Literary Fund amounted to $122,672.46, which includes the proceeds of several fines, escheats, etc., and the expenditures to $109,968.03, leaving a balance in the treasury equal to $36,858.36.

Public Schools. There are two descriptions of schools in Virginia, viz., the primary or common schools, and the district free schools. The latter are established in Henry, Jefferson, Kanawha, King George, Northampton, Norfolk, Ohio, Princess Anne, and Washington counties, and in the towns of Portsmouth and Wheeling. The first are schools for the poor, and the latter for all classes. The number of school commissioners in 139 counties and six towns was 1,865. There were in 123 counties and towns, 3,710 common or poor schools, at which 30,324 children had been taught during the year, at a total expense of $68,964; and in eight counties and two towns, 232 district free schools, at which $10,848 children had been taught at a total expense of $59,628. The average cost of each child in the common schools was $2.21, and in the district schools $5.86. Average attendance of each child at common schools 56 days, and at district schools about 110 days. The reports, however, are very incomplete and wanting in detail.

University of Virginia. This is a State institution, and had in 1852–3, 400 students. The numbers in attendance on the several schools were as follows: school of ancient languages, 122; of modern languages, 117; of mathematics, 143; of natural philosophy, 125; of chemistry, 206; of medicine, 96; of comparative anatomy, physiology, and surgery, 94; of anatomy, 97; of moral philosophy, 119; and of law, 81. The receipts of the University for the year were $47,329.44, and the expenses $44,266.09. The library contains 15,115 volumes, and 4,587 pamphlets and periodicals, or 19,702 in the aggregate.

VIRGINIA MILITARY INSTITUTE. This is a *military* and *scientific* school in law and in fact, and the policy of its course of instruction has been regulated accordingly. The course of instruction is distributed among six departments, viz., mathematics; English and Latin languages; engineering, drawing, and geography; chemistry, geology, and mineralogy; natural and experimental philosophy; and French language. The expenses of the institute for the year, exclusive of funds expended in new buildings, were $48,779.91, of which sum $15,406.42 paid the expenses of the Institute proper, $19,551.19 those of the quartermasters' department, and $13,822.30 those of the subsistence department.

DEAF MUTES AND BLIND. The institution is located at Staunton. In the Deaf-mute department there was 65 inmates—33 males and 32 females; and in the Blind department 38—22 males and 16 females. The whole number of deaf-mutes on the registers on the 30th September, 1852, was 137, and of blind, 83. The inmates are employed in four shops—the brush and mattress shop, the book-binding shop, the shoe shop, and the chair shop. The literary education is very thorough, and includes music, drawing, etc. Annual charges, $120 for deaf mutes, and $160 for the blind. The expenses of the institution for the year amounted to $18,855. State appropriation $15,000.

WISCONSIN.

EDUCATIONAL FUNDS. The State has received from the United States 958,648 acres of land for elementary schools, and 46,000 for a university. The capital of the Common School Fund, December 31, 1854, was $1,670,258.77, of which the sum of $1,635,576.74 is drawing interest at 7 per cent., and will give $114,490 for distribution. If to this be added unexpended balances, there was for distribution, in 1855, $144,412, or a fraction over 93 cents to each child in the State between 4 and 20 years of age. There is, besides, the University Fund, of $161,146.61, the income of which is applied for the benefit of the State University.

COMMON SCHOOLS. For the year ending August 31, 1854, returns were received from 38 of the 50 counties in the State. Of the 435 towns in the counties heard from, all but 10 made reports. The number of school districts in the reporting towns was 2,164. 101,580 out of the 155,125 children residing in the counties, between the ages of 4 and 20, attended school. 1,359 children under 4 years of age, and 994 over 20, attended school. Average monthly wages of male teachers, $21.10; of female, $10.87. Average number of months kept by male teachers, 3.4; by female teachers, 4.33. $163,485.64 were expended for teachers' wages, $2,040.89 for libraries, and $9,472.43 for other purposes. Number of volumes reported in libraries, 14,027. There are 75 school-houses of brick, 79 of stone, 933 of logs, and 1,052 framed, and all are valued at $347,544.55.

STATE DEAF AND DUMB INSTITUTE AT DELAVAN. Established in 1852. 31 pupils in 1854.

STATE INSTITUTE FOR THE BLIND AT JANESVILLE. Established in 1850, and supported by a State tax of a mill in every dollar of taxable property, which yielded in 1853, $1,500. 16 pupils in 1854.

VII. STATISTICS OF PUBLIC INSTRUCTION IN CITIES AND LARGE TOWNS.

In presenting the Statistics of Public Schools in a few of the cities included in the Table VIII., we will relieve the severity and dryness of mere figures, by presenting them in their connection with the observations of the school officers intrusted with the administration of the several systems.

BOSTON.

The Public Schools of Boston are intrusted to the supervision of a School Board, composed of seventy-four members, *viz.*, the Mayor of the City, the President of the Common Council, and six persons chosen in each ward,—two elected each year, and holding their offices for a term of three years. This board are assisted by a superintendent,—who receives a salary of $2,500, and devotes his whole time to the interests of the schools. This office is now held by that veteran, not in years, but in school superintendence, Nathan Bishop, LL. D., and any suggestions from his pen are entitled to the serious consideration of all engaged in organizing or administering systems of public education. From his last (Fifth) Annual Report, and the Annual Report of the School Board for 1855, and the Report of the Auditor, we gather the following statistics and suggestions.

The present territorial limits of Boston include 3,500 acres, nearly one-half of which has been reclaimed from the sea. It is all one school district,—and the schools in the remote, and less wealthy sections have as good school houses, furniture, appliances, and teachers, as those in the central and richer portions.

In 1855, there were 162,748 inhabitants, of whom 29,092 were between the ages of five and fifteen. As to the school attendance of these children, the superintendent makes the following exhibit:

"For the year ending September 1st, 1855, there were 23,529 pupils belonging to the public schools, and in habitual attendance. To avoid all misunderstanding on this point, it may be well to add here a few words of explanation. The above is the *average* number *belonging* to the schools during the year, although the whole number of different pupils who received public instruction for a longer or shorter time, was much larger. For example, if one pupil attend school *five* months, another *three*, and a third *two*, these three would be counted in the foregoing estimate as if they were only one child attending school the ten months which constitute a school year. Hence, while we report that 23,529 pupils were in the public schools last year; it is a matter of record that more than 25,500 individual children received instruction in our schools for a period varying from one month to the whole year.

Of the 23,529 pupils reported as being in the schools last year, there were, in the primary schools, 1,729 between four and five years old, and in the higher grades of schools there were 841 scholars over fifteen years of age. Now by using these statistics as the basis for calculating the whole number of school children in the city, between four and five years old, and those over fifteen who are probably in school, we find the result to be 3,082, which, being added to the 29,092 gives us 32,174 as the number of young persons in Boston who are "*due* at the schools," and who ought to be receiving instruction in some public or private school for a large portion of the year.

Let us now see what account we can render of these 32,174 young persons who are of a suitable age for being in some school.

1. It has already been stated that there were 23,529 pupils in habitual attendance at the public schools during the year, and also that at least 2,000

more received instruction for such periods as will give to this number an average of about four months schooling in the year. By adding these two numbers and subtracting the sum from 32,174, we have left 6,645 persons of suitable age who do not attend the *public* schools.

2. We now proceed to ascertain what number of these persons are in attendance at the various *private* schools in the city.

We have ascertained that there can not be less than 3,180 scholars in all the "incorporated and unincorporated academies and private schools" in the city. Taking this number from the 6,645, we have 3,565 young persons of a proper age for attending school still unaccounted for.

3. In the next place, we must find how many of this remaining number are in the numerous public and private charitable and reformatory institutions within the limits of the city. We learn from the report of the person employed to collect the statistics relating to the private schools, that there are in these institutions 638 children of the proper age to be included in this estimate, who are receiving regular instruction suited to their years. After deducting this number from the 3,565, we have 2,927 who are not known to be receiving what is termed a good common education in schools.

4. In addition to the children in the public and the private schools, and in the various institutions, there are in every community many who are taught at home by instructors employed for the purpose, either because the parents prefer a home education, or on account of some physical or mental inability on the part of the children to endure the exposures of school life, or to keep pace with others of their own age in learning. Without pretending to give an exact estimate of this number, we presume there are more than 200 of this class in the city; yet we prefer to place this estimate at a low point, because we have no means of ascertaining all the facts in the case. Taking this number from the 2,927, we have 2,727 left to be accounted for.

5. There is a very large class of young persons between about twelve and eighteen years of age who are necessarily engaged in some daily occupation for a livelihood, such as young servant girls employed in families, news-boys, and errand-boys for offices and stores, and young apprentices of both sexes, who have begun early to learn trades. Though these persons are deprived of the opportunity of attending the day schools for the greater portion of the year, many of them take advantage of the evening schools established in different parts of the city for the special benefit of those who are thus obliged to commence laboring for their living before they have obtained an ordinary education, and also for the instruction of adults whose early education has been entirely neglected. These evening schools are established and conducted by associations of philanthropic persons of different religious denominations, and are supported by contributions from benevolent citizens, like many other charities. The teachers in these schools are generally well bred and well educated persons of both sexes, who volunteer their services, and in this way they do a great amount of good both by their direct instructions and by their examples of manners and habits worthy of imitation.

The city government has no care or control of these schools, and is not connected with them in any way, except as a liberal contributor, giving from $1,200 to $1,500 a year toward their support.

During the past twelve months over 1,800 persons were instructed in the six evening schools in the city, which were kept open from four to five months. From the statistics of these schools it appears that, at the lowest estimate, 600 of these persons were under eighteen years of age, and therefore this number should be deducted from the foregoing 2,727.

6. We have now 2,127 remaining, who are, so far as we can learn, growing up to maturity without much regular school education. Without attempting to give any very accurate information concerning the remainder, we must content ourselves with three remarks.

1st. It is highly probable that about one-third of this number is made up of apprentices over fourteen and under eighteen years of age, and who, of course, have no legal claim on their masters for any schooling. Such persons usually obtain a respectable common school education before entering their apprenticeships.

2nd. Perhaps another third consists of boys and girls between twelve and fifteen years of age, whose straitened circumstances compel them to labor all the time, and who are engaged in various industrial pursuits, where their employers do not observe the law of the State forbidding all persons to hire or secure the services of any child under fourteen years of age, who has not attended some school for at least twelve weeks during the year preceding the time of entering upon service.

3rd. As the census with which we commenced includes all children in every condition of life, we must, in disposing of the remaining 700, allude to a class of children,—very small, we are happy to believe,—who, from extreme physical weakness, or other causes, are incapable of learning any considerable part of what constitutes a good common education, and for this reason do not attend any schools.

In compliance with the school regulations, I have endeavored to give this topic a thorough examination. I am unwilling to take leave of the subject without expressing my entire confidence in the substantial accuracy of the foregoing statements, and also expressing the belief that out of 32,174 young persons in the city who are "due at the schools," there are not more, on an average, than 500 absentees from school who deserve to be blamed for non-attendance."

Under "An Act concerning Truant Children and Absentees from School," passed by the legislature of Massachusetts in 1850, and modified in 1853 and and 1854, the city of Boston has adopted ordinances to secure the general attendance of children at schools. Dr. Bishop presents the following main feature of the plan in actual operation.

"The territorial limits of the city are divided into three districts, and a 'Truant Officer,' so called, is appointed for each district. He is required to spend his whole time during school-hours in traversing streets, lanes, alleys and other places in search of absentees from school. These are of several different classes. One class is composed of the children whose parents have recently moved into the city, and who, being more or less indifferent to the education of their children, have neglected to find places for them at school. Whenever the truant officer finds any of these children idle in the streets of his district, he makes such inquiries of them as may be necessary to ascertain their condition. If he deems it expedient he accompanies them to their places of residence, and by conversing with their parents in kind and respectful terms, he generally succeeds in pursuading them to send their children to school, without any show of his authority, which should always be kept out of sight until other means have failed, and then be exercised as a last resort.

Another class of absentees stay away from school for want of shoes or such clothes as will enable them to make a decent appearance among the pupils at school. By patient efforts, on the part of the truant officer, he can generally obtain from various sources such new or second-hand articles of wearing apparel as will keep this class of pupils respectably clad, and thus enable them to continue in school.

A third class of absentees is composed of children whose parents are so unfortunate, or idle, or vicious, as to require them to stay away from school for the purpose of gathering fragments of fuel and of food for the family at home. The officer can do much in his district to diminish the number of this class of absentees, but in cases of extreme poverty the absence can not be prevented, for necessity knows no law.

The fourth and last class embraces the idle and dissolute runaways from school, who not unfrequently absent themselves against the wishes and commands of their parents. Even such children the officer tries to win back to habits of attendance and good conduct, and is often successful. But, when other means fail, he complains of the offender, who is arraigned according to law, and if found guilty is sentenced to some reformatory institution for a period varying from one to two years, where he will be instructed in the common school studies, and also taught to labor at some trade. In some cases the child is sentenced to the State Reform School during his minority, not so much to punish him as to save him from apparent ruin, and to give him an opportunity of growing up under good influences, and of becoming a good member of society.

During the year the three truant officers have investigated about three thousand instances of absenteeism. It must not be inferred, however, from this statement, that three thousand different children have required attention from a truant officer. Probably one thousand children, or even less, have occasioned this number of visits, as an officer has sometimes been obliged to call on the same individual six or eight, or even ten times during the year to keep him in school. About one-third of the one thousand absentees do not deserve to be blamed for not being in school, while the remainder are more or less censurable for their absence.

The truant officers have, in the course of the year, complained of one hundred and twelve children as idle and dissolute, and about one hundred of them have been committed to various reformatory institutions, where they will receive proper instruction and discipline, and enjoy the means of reformation."

There are three grades of schools, *viz.*, 202 Primary Schools, with 14,405 pupils; 18 Grammar Schools, with 10,629 pupils; and 3 High Schools, (1 Latin, 1 English, and 1 Girls' High School,) with 495 pupils. The following particulars are gathered from the tables of the Superintendents' Reports.

Primary Schools—Number of schools,	202
Attendance—Boys, 6,604; Girls, 5,801. Total,	12,405
Teachers—Females,	202
Grammar Schools—Number,	18
Attendance—Boys, 5,301; Girls, 1,328. Total,	50,629
Teachers—Masters, 21; Sub-masters, 20; Female Assistants, 166. Total,	207
High Schools—Number,	3
Latin School—Attendance—Boys,	198
Masters, 1; Sub-masters, 1; Ushers, 1,	3
English High School—Attendance—Boys,	155
Masters,	5
Girls' High School—Attendance—Girls,	142
Teachers,	4
Total cost of School-houses, including land and repairs, to May 1st, 1856,	$1,452,300.00
Whole number of children in attendance,	23,529
Expenses of schools for years 1854–5, *viz.*, Salaries of Teachers,	$223,024.61
Incidental Expenses,	67,977.34
Rate per scholar—On Salaries of Teachers,	9.39
" Incidentals,	286
" Total expenses per year,	12.25

The Superintendent submits the following remarks on the separation of the sexes in schools.

"In all the Primary Schools, except a few established for the special instruction of children over eight years old, little boys and girls are admitted without distinction, and are seated together in the same room. Sitting side by side they study their lessons, and stand up together in the class for reading and in all other school exercises. In short, they are trained up together in the same way as the boys and the girls in any well regulated family, where they are taught to observe the little proprieties of conduct due to each other. But on leaving these schools to enter those of the next higher grade, the pupils that have been associated for years in the same classes are separated, and one sex is sent in one direction to a grammar school for boys, and the other in a different direction to a grammar school for girls.

There are some practical inconveniences arising from this plan of separating the sexes in the schools, which cause much unnecessary solicitude and trouble to parents. It separates the boys and girls of the same family, and thus deprives the younger children of the care and attention of their older brothers or sisters, which they so much need, especially in unpleasant weather, while going to and returning from school. But this evil is greatly aggravated by another arising from the same source. Having separate schools for boys and girls, usually doubles the distance which each sex is required to walk to school. If the weather were always fine, this would not be any special objection; but as it is often unpleasant, this plan compels the scholars to be out in the rain, or storm, or cold, or heat, twice as long as would otherwise be necessary, which must often keep the girls and the younger boys from going to school, and may sometimes injure their health by undue exposures in severe weather. But it is said that the advantages to be derived from the separation of the sexes in schools outweigh these and other objections. Without intending to enter upon a thorough discussion of this subject, I shall endeavor to present a fair view of the leading arguments which have been offered in favor of the plan, and also of those which have been urged against it.

On the one hand it is argued that a good and appropriate education for the girls in the grammar schools requires a course of studies different from one best suited to the wants of the boys in these schools, because the girls are to be called to a class of duties in after life entirely different from those in which the boys are expected to engage. On the other hand, it is said that this plausible assertion has no foundation in truth, because it is impossible to form a good course of studies for the girls in these schools which is not almost entirely confined to reading, spelling, writing, arithmetic, geography, grammar, history and exercises in English composition, and this is the very course pursued in the grammar schools for boys. In further proof of this it is stated that, although separate schools for the girls have been in operation for many years, no such course has ever been introduced into them, and that the present course of studies prescribed for these schools, and the text-books required to be used in them, are almost identical with those prescribed for the boys' schools, and that the slight differences whidh may now exist in the books in use did not spring from any endeavor to adapt them to the different sexes.

But the advocates of separating the sexes in schools for children claim that on this system the boys and the girls, especially the latter, may be trained up to be more elevated in their tastes, more refined in their manners, and more thoroughly imbued with moral principles.

In reply, it is stated that these assertions are not entitled to any weight whatever unless supported by facts derived from experience, and that these facts lead to the opposite conclusion. It is asserted that it is not true that those persons who have been chiefly educated in separate schools have acquired purer tastes, more cultivated manners or better moral principles than others who were educated in mixed schools. In support of this, certain towns and cities are named in which mixed schools were changed into separate schools, for the purpose of securing these benefits, but, after a few years' experience, these schools were changed back again, because the legal guardians of them were convinced that the separation led to the use of coarser speech among both boys and girls, and to ruder manners and more lax morals, especially in regard to speaking the truth in relation to their participation in the various mischiefs and disturbances in which active school children are apt to become entangled.

To these considerations I append two sketches,—one of a boys' school, drawn by De Quincey, who is ranked among the best English writers of the present day; and the other from the pen of Mrs. Jameson, who stands in the highest rank of female writers both in England and in this country.

De Quincey is describing the influence on himself, received from conversing with females in regard to his studies, while he was yet a schoolboy.

'Then first and suddenly were brought powerfully before me the change which was worked in the aspects of society by the presence of woman; woman, pure, thoughtful, noble, coming before me as Pandora crowned with perfections. Right over against this ennobling spectacle, with equal suddenness, I placed the odious spectacle of school-boy society,—no matter in what region of the earth,—school-boy society, so frivolous in the matter of its disputes, often so brutal in the manner; so childish, and yet so remote from simplicity; so foolishly careless, and yet so revoltingly selfish; dedicated ostensibly to learning, and yet beyond any section of human beings so conspicuously ignorant.'

On this passage Mrs. Jameson remarks:—

'There is a reverse to this picture, as I hope and believe. If I have met with those who looked back on their school-days with horror, as having first contaminated them with 'evil communication,' I have met with others whose remembrances were all of sunshine, of early friendships, of joyous sports.

Nor do I think that a large school composed wholly of girls is in any respect better. In the low languid tone of mind, the petulent tempers, the small spitefulnesses, the cowardly concealments, the compressed or ill-directed energies, the prococious vanities and affectations, many such congregations of young girls would form a worthy pendant to the picture of boyish turbulence and vulgarity drawn by De Quincey.

I am convinced from my own recollections, and from all I have learned from experienced teachers in large schools, that one of the most fatal mistakes in the training of children has been the too early separation of the sexes. I say, *has been*, because I find that everywhere this most dangerous prejudice has been giving way before the light of truth and a more general acquaintance with that primal law of nature, which ought to teach us that the more we can assimilate on a large scale the public to the domestic training, the better for all. There exists still, the impression,—in the higher classes especially,—that in early education, the mixture of the two sexes would tend to make the girls masculine and the boys effeminate, but experience shows us that it is all the other way. Boys learn a manly and protecting tenderness, and the girls become at once more feminine and more truthful. . . .

When I have seen a class of girls stand up together, there has been a sort of empty tittering, a vacancy in the faces, an inertness, which made it, as I thought, very up-hill work for the teacher; so when it was a class of boys, there has been often a sluggishness,—a tendency to ruffian tricks,—requiring perpetual effort on the part of the master. In teaching a class of boys and girls, accustomed to stand up together, there is little or nothing of this. They are brighter, readier, better behaved; there is a kind of mutual influence working for good; and if there be emulation, it is not mingled with envy or jealousy. Mischief, such as might be apprehended, is in this case far less likely to arise than where boys and girls, habitually separated from infancy, are first thrown together, just at the age when the feelings are first awakened and the association has all the excitement of novelty. A very intelligent schoolmaster assured me that he had more trouble with a class of fifty boys than with a school of three hundred boys and girls together, (in the midst of whom I found him,) and that there were no inconveniences resulting which a wise and careful and efficient superintendence could not control. 'There is,' said he, 'not only more emulation, more quickness of brain, but altogether a superior healthiness of tone, body and mind, where the boys and girls are trained together, ... and it extends into their after life;—I should say because it is in accordance with the laws of God in forming us with mutual sympathies, moral and intellectual, and mutual dependence for help from the very beginning of life.'

In a moral point of view this subject presents a question of the gravest character. All persons, whatever may be their speculative notions, must give the preference to that mode of educating the young, which, as a general thing, produces the most perfect development of the human character and thus best fits the pupils, while in school, to sustain themselves well amid the temptations and the duties of life.

In the many thousands of Sunday schools which are established expressly for promoting the moral and religious education of children and young persons, the theory of separating the sexes and of placing the boys in one room by themselves, and the girls in another, for the purpose of securing better results, has never been approved, although hundreds of good men have been trying for years to devise ways and means to increase the efficiency of these schools.

The propriety of referring to this subject in this report will become apparent to all, when it is known that, during the ensuing year, three large and commodious school-houses will be completed and placed in the possession of the school committee, ready for the reception of pupils. The locations of these houses are such as to render it necessary to have both sexes in the same building, and in this way the question of having them in the same, or in separate rooms, is forced upon the attention of the board, and they must decide it. All the new houses are built in such a manner that the boys and girls have entirely separate entrances to the building and separate play-grounds. If placed in the same rooms *they will not be together anywhere, except in the presence of their teachers*, and, in addition to their authority, the sexes, by their mere presence, never fail to exercise a salutary influence over each other whenever they are brought together under such wholesome restraints. This influence springs from a natural law which pervades the human race,—one that is implanted in the very constitution of the sexes, and seems to have been intended by the Creator as an important means of governing and guiding the young, and of calling into activity the higher principles of self-control. Whenever this natural force is dispensed with, it has been found necessary to introduce some other, in order to secure a proper control over the young. Instead of this influence, which always elevates the character of all whom it controls, corporal punishment has been introduced,—*necessarily* introduced,—into the separate schools for boys. It is not here stated or implied that there would be no necessity for resorting to corporal punishment in the schools where the sexes are under the influence of each other's presence ; but it is fully believed that a large portion of what is now deemed necessary in separate schools for boys would be uncalled for, and the teachers would be spared the extremely unpleasant task of inflicting it.

In making the foregoing suggestions on this subject, I am fully aware that the question of having separate or mixed schools is not free from embarrassments ; but after an impartial view of both sides of the case, I am inclined to give the preference to that which seems to be indicated by the Creator in placing children of both sexes together in families, and which is indicated still more clearly in the early manifestations of a desire implanted in each sex to be respected and esteemed by the other. This sentiment naturally leads children of different sexes, who are permitted to associate with each other under proper supervision, to the formation of habits of neatness and order, and to the cultivation of amiable manners, refinement of mind and a high tone of moral feelings.

But those parents who allow their sons and daughters to go away from home in the evenings, and at other times, to places where the sexes will meet together under far less restraints than would always be felt at school, will look in vain for these improvements in the character of their children. The solicitude of many parents in regard to the conduct of their children in this respect, seems to be strangely misdirected. They are extremely desirous of sending their daughters, who attend the grammar schools, to those buildings which are occupied exclusively by girls, so that they may be kept entirely from the sight of boys of their own age, during the broad daylight of school hours. But when the sun has gone down and the shades of evening are deepening into the darkness of night, then many of these same parents often permit their daughters to go to parties or gatherings for social enjoyment, or to various other places of amusement, where they will be sure to meet, and not unfrequently to walk the partially lighted streets, with the very boys whose presence in the open light of day, under the watchful eye of their teachers, was deemed unfavorable to the moral culture of the girls.

The beginnings of nearly all those improprieties of conduct into which the indiscretion of children and youth often leads them, may be traced to the unguarded social intercourse during the evenings, which their parents have, perhaps, thoughtlessly allowed. Few children and youth, who have uniformly spent their evenings under proper influences, have failed to become ornaments to their families and blessings to society. On the contrary, those who have generally spent their evenings among their companions, without being under the salutary restraints and the kind advice of judicious persons, have rarely failed to bring down the gray hairs of their parents in sorrow to the grave, and to become worse than useless to the world.

I would advocate the greatest caution in regard to the social intercourse of boys and girls while at the week-day school, the Sunday school, and at all other places where they are in the habit of meeting in the *day time,* and I must respectfully but earnestly urge parents,—and I am sure that all careful observers of the young will unite with me in urging them,—to turn their attention and watchfulness especially to the places, the company and the manner in which their children,—such as are in the grammar schools,—spend their evenings. Parents should spare no pains that may be necessary to inform themselves on these points, and to throw around their sons and daughters the strongest moral safeguards. For it is well known that the lower passions of the human race slumber during the daytime, like certain wild animals, and, like them also, when darkness comes, awake hungry for their prey."

PHILADELPHIA.

The following statistics are taken from the Thirty-seventh Annual Report of the Controllers of Public Schools for 1855.

"The whole number of schools in 1855 was 303, namely, 1 High School, 1 Normal School, 56 Grammar Schools, 47 Secondaries, 156 Primaries, and 42 Unclassified schools.

The whole number of teachers was 935, of whom 81 were males, and 854 females.

The number of scholars belonging to the schools was 54,813, of whom 28,152 were boys, and 26,661 were girls. These items, as compared with those of the year previous, show an increase of not less than 15 schools, 59 teachers, and 2,740 scholars.

The increase of 2,740 new scholars, during the year, required the employment of 59 additional teachers, which, at the rates already existing, still further swelled the item of salaries by about $15,000.

The total amount expended by the Controllers during the year, was $520,786.22.

It has been customary, heretofore, to divide the expenses into two principal heads, namely, those which are essentially temporary, as salaries, house-keeping, fuel, &c., and those which are permanent, and the use of which remains from year to year. Under the latter head are included building lots, school-houses, additions and repairs to the same, furnaces and stoves, and furniture generally. All these items are of the nature of a permanent investment, the annual interest only of the aggregate amount being chargeable to each year. The sums spent for these purposes in 1855, were for

New School Houses,	$19,828.67
Additions and Repairs,	28,728.30
Furnaces and Stoves,	7,652.44
Furniture,	8,826.50
Total,	$65,035.91

The aggregate of the sums previously expended for these purposes from 1818, to December, 1854, (See Appendix,) amounted to	$1,171,787.10
Adding the amount for 1855,	65,035.91
Total,	$1,236,823.61

We have a total permanent investment in lots, houses, and furniture, of $1,236,823.61. The interest on this sum at 5 per cent. (which is as much as other holders of real estate are wont to net after deducting taxes and repairs) is $61,841.18. This sum of $61,841.18 is really the rent at which the public schools in 1855 had the use of the school-houses owned by the city. The other rents (for houses owned by individuals, and leased by the Controllers, including also ground rents and water rents) were $25,558.60. The total amount of these two items chargeable to the past year, under the general head of rent, as just explained, is $87,399.78.

The whole amount expended in 1855, for incidentals, may be recapitulated as follows:

Fuel,	$20,140.25
Superintendence and cleaning of school-houses, clerk hire, printing, and other petty expenses of the twenty-four sectional boards,	36,844.71
General expenses of the board of controllers,	12,081.14
	$69,066.10

The various items of cost, therefore, in teaching the pupils of the public schools, are reducible to these four heads, namely,

1. Tuition (salaries of teachers.) 2. Books and stationery. 3. Incidentals. 4. Rent of school-houses, including in the latter, not only payment for those buildings leased from individuals, but also interest on the cost of those owned by the city.

These items divided severally by 54,813, the whole number of pupils, show the precise rate of cost under each head to have been as follows:

Tuition, (salaries of teachers,)	$294,316.19	rate per pupil,	$5.37
Books and Stationery,	51,320.26	"	.94
Incidentals,	69,066.10	"	1.26
Rent,	87,399.78	"	1.59
Total expense of educating a pupil for one year,			$9.16

This statement includes everything, of every kind, legitimately chargeable. It includes, moreover, the expenses of the High School and the Normal School, as well as of the other schools.

When we call to mind the superior character of the instruction and the high state of discipline in the public schools, and consider that for so small a rate of expense,—only $9.16 per annum, (a sum not so large as the ordinary cost of books alone in private schools,)—every child in this city may receive a really excellent education, and that more than fifty-four thousand of the children of this city are now receiving such an education, the controllers can not but feel, that they have reason to congratulate their fellow-citizens upon the condition of this important department of the public service, and to claim for it results commensurate with the expense.

The Grammar, Secondary, Primary and Unclassified Schools, (leaving out the High School and the Normal School,) contain 53,772 pupils, and have cost for the year, under the three heads just named, as follows:

Tuition, (salaries of teachers,)	$269,597.86	rate per pupil,	$5.01
Books and Stationery,	49,754.09	"	.92
Incidentals,	66,101.62	"	1.23
Total,			$7.16

The Normal School contains, besides its 210 normal pupils, 230 children in its school of practice. Whatever these 230 children would have cost, if taught in one of the grammar or secondary schools, ought to be deducted from the sum total of the expenses of the normal school, in order to ascertain the amount legitimately chargeable to normal pupils. The average rates of expense in the other schools have just been shown. According to these rates, the 230 children in the school of practice would have cost, had they been taught elsewhere, $1,152.30 for tuition, $211.60 for books and stationery, and $282.90 for incidentals. Deducting these sums from the gross amount charged to the normal school, we have the following results as the legitimate expenses of the 210 normal pupils:

Tuition, (salaries of teachers,)	$3,777.70	rate per pupil,	$17.99
Books and Stationery,	570.72	"	2.71
Incidentals,	574.47	"	2.74
Total,			$23.44

The number of pupils attending the High School has been 601, and the expenses have been as follows:

Tuition, (salaries of teachers,)	$19,788.33	rate per pupil,	$32.92
Books and Stationery, .	783.85	"	1.30
Incidentals, . .	2,107.11	"	3.50
Total, ...			$37.72

The High School continues to be managed with efficiency and economy. It has already, in the brief period of its existence, admitted 3,477 pupils to the advantages of its course of instruction, and those young gentlemen who have spent any considerable time within its walls, are generally regarded with special favor by the business men of the city. The intense competition among the pupils of the lower schools, to become partakers of its benefits, is of itself an immense advantage. It produces a vigorous and healthful activity throughout the system."

The Principal of the High School, John S. Hart, LL. D., submits the following remarkable statement respecting the punctual attendance of the pupils of his school.

"The attendance of the pupils of the High School is, in my opinion, worthy of remark. I take the greater pleasure in quoting it, because, according to my experience and observation, there is no more certain test of the condition of a school than the state of its attendance. No one fact shows more conclusively the interest which the pupils take in their studies, or the general efficiency of the instruction and discipline in the several departments. From an examination which I made several years ago into the records of the public schools under the Lancasterian system, I found that the average rate of absenteeism for a series of years was more than 33 per cent. In some of those same schools now, the absenteeism has been reduced to a rate that is almost nominal, not more than 4 or 5 per cent. In the High School, during the last term, the highest rate of absenteeism was only 3 per cent., namely, during the first month, when a considerable number of pupils were away during the whole of the first week, through a misapprehension of the day on which the sesssion was to begin. The next highest rate was during the extremely cold weather, in the month of January. Even then, it rose to only 2·97 per cent. The lowest rate was during the fourth month of the term, when it was only 1·5 per cent. The average rate of absentism for the whole term, was 2·2 per cent. The greatest number of absence on any one day, was on the occasion of the great snow-storm, on the 3d of January, when forty-six pupils were absent. The best attendance during the term, was on the 25th of October, and the 20th of November, on each of which days there were only three absent out of the whole school. There were seven days in the term, on which there were only 5 absent. The class whose attendance was best, was Division A. One of their number was absent for two weeks, with the varioloid. With this exception, there were out of the whole class only 3 absent during all the first month, only 1 in the fourth month, 1 in the fifth month, and none at all in the second and third months. In connection with these facts, it should be borne in mind that many of our pupils have to come a distance of several miles, and that the average distance which they have to come is more than a mile and a half."

The training of the pupils of the High Schools in composition is treated as follows:

"On three successive evenings of the week before commencement, public exercises in composition and declamation are held in the large lecture room of the High School. The compositions on these occasions, are written extempore, on subjects assigned on the spot, by some one in the audience. The subject is announced, and the writers begin to compose just before the declamation commences. When the declamation, which lasts about an hour, is ended, each writer is called upon to rise in his place, and read what he has written during the time of the speaking. These exercises are a better test of the intellectual training which the pupils have received, than any other which the school affords."

PROVIDENCE, R. I.

The following statistics and suggestions are taken from the *Annual Reports of the School Committee to the City Council,* and of the *Superintendent* (Rev. Daniel Leach) *to the School Committee,* for 1855.

Number of scholars admitted in spring, 1855,	6,620
Average daily attendance,	4,627
Average daily absence,	809

The committee submit the following remark as to a practice which is beginning to prevail in our manufacturing towns:

"The employment of children in our manufacturing establishments during the night time, has in the opinion of the committee, a most debasing influence on the character of that portion of our community dependent upon that labor for their support. It is a practice that should, if possible, be prohibited. Boys and girls alike are employed throughout the entire night during some portion of the year, thus reversing the order of nature, and turning night into day; and at that age, the bad effect upon the morals, upon the future character of these persons, can not be estimated. The day is spent partly in sleep, and partly in the street; and they are left to grow up in the lowest depths of ignorance, and consequently fit subjects for crime and vice."

The superintendent dwells at great length and ability on the evils of

Irregular Attendance.

"The evil that first presents itself to my mind, is one of no ordinary magnitude, and I allude to it at this time, not because it exists in this city in a greater degree than elsewhere, but rather because its enormity is so great that it never should be lost sight of, until some judicious and appropriate remedy is found for its mitigation or permanent cure. I refer to the irregular attendance of children in our public schools. It is hardly possible to overstate the magnitude of this evil. It is one that has engaged the attention and awakened the anxious solicitude of the friends of education throughout New England. In our educational periodicals, and in the reports of committees and superintendents, eloquent and touching appeals have been sent forth to parents, and still this evil is shedding its saddening and blighting influences over the best schools in our land. The means and agencies that are now employed in the noblest of all causes, are failing to produce their legitimate results. Thorough and skillful teaching, united with vigilant and careful supervision, can accomplish, comparatively but little, when the attendance of pupils is inconstant and irregular. What can more effectually damp the ardor of a faithful teacher, and render nugatory his best directed efforts, than the frequent absences of his pupils? For in a school properly graded and classed, every instance of absence or tardiness produces, more or less, disorder and confusion, and seriously interrupts the onward progress of the class. When a pupil returns to school after a long or a short absence, the class to which he belongs must either wait in idleness, while he is fully prepared in that which they have passed over, or he must be subjected to the mortification of attempting to comprehend truths which can not be thoroughly understood without a knowledge of that which precedes. For there can be no intelligent study unless each preceding step is preparatory to a succeeding one.

The developing of the powers of the mind in their natural order, is of far more consequence than the simple knowledge of any number of facts, however important they may be. And this can be secured only by a gradual and uninterrupted process, analogous to that which we observe in nature, in the opening bud and the expanding flower.

The effect of irregular attendance on the discipline of the school is no less marked and striking. When scholars cease to be interested in their studies, they soon become proper subjects for discipline. A large majority of all cases of difficulty originate from this source. Instances are quite rare of pupils falling under censure, who are prompt and regular in their attendance at school.

But this evil is by no means limited to the school-room. The habits formed in early life have a powerful and abiding influence in determining the future career of every youth. And every system of education must be radically defective in which this is not regarded of paramount importance."

TRUANCY.

"There is still another class of youth who are habitually truants, whom no parental authority can reach, and no power but that of the law can bring under the influence of intellectual and moral discipline. Shall such continue to roam our streets, and early become initiated in all the debasing vices of our city, or shall the friendly arm of the law be extended to rescue them from utter degradation and ruin? Without the aid of some legislative enactment but little can be done by this committee to benefit this class. Active sympathy and moral suasion can accomplish something, but there can be no effectual remedy for this growing evil, unless there are compulsory measures to be resorted to when necessary. In many towns and cities in New England a truant law is enforced, which is accomplishing an incalculable amount of good. Might not a judicious law, wisely administered, produce similar results in this city?"

The annual report of the city auditor for 1855, exhibits the following items of expenditure for public schools:

Salary of Superintendent,	$1,500.00
" Teachers in High School,	4,037.00
" " Grammar Schools,	11,725.00
" " Intermediate "	9,183.34
" " Primary "	11,442.51
" " Colored "	1,336.67
" " Evening "	450.00
Aggregate of expenses for superintendence and instruction,	41,000.00
Incidental expenses, fuel, slight repairs, &c.,	15,000.00
Total annual expense of instruction and incidentals,	56,000.00
Expenditure for sites, &c.,	8,718.00
Total expenditure for public schools,	64,737.27
Expense for the reform schools,	16,633.87

The following items are gathered from the official census, taken in July, 1855, by Edwin M. Snow, M. D.

Population in 1855,	47,785
" " native born,	33,682
" " foreign born,	23,848
Number of persons between the ages of 5 and 10,	4,951
" " " " 10 and 15,	4,266
" " " " 15 and 20,	4,690
Number of persons who attended school in 1854–55,	7,916
" " " " between 5 and 15,	6,233
" " " " under 5 and over 15,	783
" " " " public schools,	67,000
" " " " Catholic and select schools,	1,286
" " returned as not going to school,	2,984
Amount of money raised by tax in 1855,	$300,000.00
Expenditure for public schools,	81,371.04
" highways,	818,517.03
" police,	41,592.00
" support of the poor,	13,737.86

We shall continue our extracts from the official documents respecting public schools in other large cities and towns in the different States.

TABLE VIII.—POPULATION OF CITIES AND TOWNS IN THE UNITED STATES.

CITIES AND TOWNS.	Population of 1830.	Population of 1840.	Population of 1850.	Ratio of in crease from 1830 to 1840.	Ratio of in'se fr'm 1840 to '50.
Bangor ... Me.	2,867	8.627	14,432	200.09	67.28
Portland ... “	12.598	15,218	20,815	20.79	36.77
Augusta ... “	3.980	5,314	8,225	33.51	54.77
Bath ... “	3,773	5,141	8,020	36.25	56.00
Manchester ... N. Hamp.	877	3.235	13,932	268.87	330.67
Boston ... Mass.	61,392	93,383	136,871	52.01	46.56
Lowell ... “	6,474	20.796	33,383	221.22	60.52
Salem ... “	13,895	15,082	20.264	8.54	34.35
Roxbury ... “	5,247	9,089	18.364	73.22	102.04
Charlestown ... “	8.783	11.484	17 216	30.75	49 91
Worcester ... “	4,173	7,497	17,049	79.65	127.41
New Bedford ... “	7,592	12,087	16.443	59 02	36.03
Cambridge ... “	6,072	8,409	15 215	38.48	80.93
Lynn ... “	6.138	9,367	14.250	52.06	52.02
Springfield ... “	6,784	10,985	11,766	61.92	7.01
Taunton ... “	6,042	7.645	10,441	26.53	36.57
Providence ... R. I.	16,883	23,171	41,512	37,65	79.15
New Haven ... Conn.	10,678	12,960	20,345	21.37	56.98
Norwich ... “	5,161	7.239	10,265	40.26	41.08
Hartford ... “	7,074	9.468	13,555	33.84	’43.16
New York City ... N. Y.	197,112	312,710	515,507	58 64	64.85
Brooklyn ... “	15,394	36,233	96.838	35.37	167.26
Albany ... “	24,209	33,721	50,763	39.29	50.53
Buffalo ... “	8,668	18,213	42.261	110.01	132.03
Rochester ... “	9,207	20,191	36,403	119.03	80.29
Williamsburg ... “	1,117	5,094	30,780	356.04	504.24
Troy ... “	11.556	19.334	28,785	67.03	48.88
Syracuse ... “	—	—	22,271	—	—
Utica ... “	8,323	12.782	17,565	53.57	87.41
Poughkeepsie ... “	7,222	10,006	13.944	38.54	39.35
Lockport ... “	3.823	9,105	12,323	138.68	35.20
Oswego ... “	2.703	4.665	12,205	72.58	161.62
Newburg ... “	6,424	8,933	11,415	39.05	27.78
Kingston ... “	4,170	5,824	10.233	39.66	75.07
Newark ... N. Jer.	10,953	17,290	38,891	57.85	124.95
Paterson ... “	—	7.596	11.338	—	49.26
New Brunswick ... “	7,831	8.663	73,387	10.62	54.53
Philadelphia City ... Penn.	80,462	93.665	121.376	16.04	29.58
Phila. Co., exclusive of the city “	108.335	164,372	287,386	51.72	74.83
Pittsburg ... “	12,568	21,115	46,601	68.00	120.07
Alleghany ... “	2,801	10.089	21.261	260.19	110.73
Reading ... “	5.856	8,410	15,748	43.61	87.25
Lancaster ... “	7,704	8,417	12,365	9.25	46.09
Wilmington ... Del.	—	8.367	13.979	—	67.07
Baltimore ... Md.	80,620	102,313	169,054	26.09	65.23
Washington ... D. Col.	18,826	23,364	40,001	24.01	71.02
Richmond ... Virg.	6,055	20.156	27,482	232 83	36.36
Norfolk ... “	9,814	10,920	14.326	11.26	31.19
Petersburg ... “	8.322	11,136	14,010	33.81	25.08
Wheeling ... “	5.276	7,885	11,391	49.45	44.46
Charleston ... S. Car.	30,289	29,261	42.985	—	46.90
Savannah ... Ga.	7,302	11,214	16,060	53.57	43.21
Mobile ... Ala.	3.194	12,672	20,513	296.74	61.87
New Orleans ... La.	49,826	102.193	119,460	105.09	16.89
Lafayette ... “	—	3,207	14,190	—	342.46
Memphis ... Tenn.	—	2.026	8,839	—	336.27
Nashville ... “	5.556	6,929	10,478	24.48	51.21
Louisville ... Ky.	10,341	21.210	43,196	105.01	103.65
Cincinnati ... Ohio.	24.831	46,338	15,436	86.61	149 11
Columbus ... “	2,435	6.048	17,883	148.37	195.68
Cleveland ... “	1,076	6,071	17,034	464.21	180.57
Dayton ... “	2,950	6,067	10.977	105.66	80.92
Chilicothe ... “	2,846	3.977	7,100	39 74	78.52
Zanesville ... “	3,094	4,760	7,929	54.04	66.36
Madison ... Ia.	—	3.798	8.005	—	110.76
Chicago ... Ill.	—	4,470	29.963	—	570.31
Detroit ... Mich.	2.222	9,102	21,019	309.63	130.92
St. Louis ... Mo.	4,977	16.469	77,860	230.09	372.76
Milwaukee ... Wis.	—	1,712	20,061	—	1,071.78

IV. CONSOLIDATION AND OTHER MODIFICATIONS OF AMERICAN COLLEGES.

BY RT. REV. ALONZO POTTER.*

THIS occasion seems to me to furnish an omen of national interest; may I not add, of world-wide interest. As connected with higher education—with the administration of Colleges and Universities—it appears to furnish, at least, some hope that several movements, which I believe are imperiously needed, may, at no distant day, be secured.

In the first place, this is a consolidation of two independent collegiate institutions, and as such, I hail it as an event which might be repeated in our own State, and throughout the land, with the utmost advantage. Hitherto the tendency has been to multiply colleges, and to isolate them. There are now some hundred and fifty colleges in the United States. They all claim to stand on the same level, to teach the same branches, and to have the same right to public confidence and support. Resources which, if concentrated, would have been ample for the thorough endowment of a few institutions, have been so scattered, and so large a part of them have been so improvidently expended, that nearly all our colleges are crippled for want of libraries, apparatus, and a competent staff of accomplished teachers. In their relations to each other, there is neither affiliation, subordination, nor—except casually—even co-operation. With a population greater than that of Britain, we are without one University proper. Our college system is now, in respect to organization, where our common or public school system was before the establishment of High Schools. The citizens of Lancaster know how that one measure infused new life and vigor into the whole school system of this town—how, by a proper distribution and gradation of work, the teaching has been improved in every department; and a portion of the pupils carried forward much further than formerly. What has thus been done for common schools needs to be done for colleges. If they would not be distanced in the work of progress and improvement, they must no longer remain in a state of estrangement from each other. They must contemplate the necessity of hearty co-operation, if not of combination and consolidation. They *must prepare the way for the open University* which, like the Universities of London and France, may be merely an organic center for purposes of supervision; or it might be constituted by a Board of Professors delegated from different colleges, and giving, personally, higher courses of instruction at some convenient point. I hail the union of Franklin and Marshall College, in the hope that we are on the eve of a general movement among similar institutions towards more of centralization.

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* Remarks at the formal opening of Franklin and Marshall College—formed by the consolidation of two chartered institutions—Franklin College located at Lancaster, and Marshall College, located at Mercersberg.

II. In another respect, this event seems to me to be auspicious. I observe among your Professors, one gentleman, at least, who was reared in a Foreign University, and who has held an honorable post as teacher in a College in Southern Europe.* I hear too, that a distinguished German Professor, who, several years since, was invited to leave his fatherland for a chair in the Theological Faculty of Marshall College, has been invited to become your President.† Though I have not the honor of his acquaintance, and can presume to have no opinion of his qualifications for such a post, yet there is one reason why I earnestly hope he may accept this place. I desire to see the example followed which Marshall College has given. In almost every country of Europe, there are men of high endowments, of admirable erudition, capable of giving instruction to the most advanced students, who are yet languishing in obscurity and poverty. Such talent exists in Germany to so great an extent, that the intellectual and scholastic market is actually glutted. Here it is far otherwise. Pursuits of a more exciting and engrossing nature absorb, with us, the energy and enthusiasm which are given among the laborious earnest-minded Germans to literary toil. We import their laboring population by thousands—we import their accomplished artisans and agriculturists—we import from all the countries of continental Europe, teachers in the rudiments of their respective languages. Why should we not have a portion of their illustrious scholars and *savans* also. Where can they find a larger field, or the promise of better pecuniary remuneration?

This policy is recommended by various considerations—and there are special reasons why it should originate in Pennsylvania. This State has one characteristic, till recently, almost peculiar to it, but which is fast growing to be the characteristic of our nation. It is the somewhat heterogeneous nationalities that are represented in its population. Not only Old and New England, but Germany, Scotland, Wales and Sweden, have long had within this Commonwealth colonies of their people. This will soon be the case with every part of the United States. Ingredients, which have hitherto been regarded as incongruous and discordant, are seething in our great national cauldron, and we confidently expect to see them fused and blended into one harmonious whole—penetrated by the one American spirit. This result will be sure and speedy, in proportion as the culture which we apply to the rising generation is large-minded and liberal—having respect to national peculiarities and combining, in a wise eclectic spirit, the methods of different fatherlands. Where can such a policy originate so properly or so readily as in Pennsylvania?

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* Professor Kæppen.

† Professor Schaff.

There is another reason why it appears to me desirable that our higher instruction in this country should have an infusion from Germany. That country has given to the world an open Bible, the common school and the printing press. Wherever these its gifts are fully enjoyed—there a reading and thinking people must be formed. Combined, as they are in this country, with a free political system and with prodigious industrial activity, they make a nation of readers, a nation of workers and to some extent a nation of thinkers. Our intellectual activity is widespread and intense, and it associates itself intimately with active practical life. But the predominance of that life with us is not friendly at present to deep erudition or to profound and comprehensive thinking. We have literature, but we want ripe thorough scholarship. We have philosophies, but they are crude, presumptuous, and narrow. Errors and extravagancies—whether pertaining to speculation or to practical questions—swarm over the land, and in the absence of vigorous habits of investigation and of a copious learning, they perpetuate themselves to the equal injury and disgrace of our national character. To her other gifts, then, let Germany add one more. Let her scholars teach us the patience, the thoroughness, the unquenchable zeal and lofty enthusiasm with which subjects should be considered; and the manly frankness and boldness with which results should be announced. Let her assist in putting into our hands the true Ithuriel spear, one touch of which will suffice to unmask pretentious sophisms, and one-sided schemes, and ambitious, unscrupulous sciolism.

Would the German scholastic mind be injured by such an association with ours? No wise German will think so. I am not prepared to adopt the saying of a distinguished scholar (I think) of the fatherland, that while the English ruled over the sea, the French over the land, the sway of Germany was over the air. I honor the passion for the ideal, and the stern enthusiasm with which the most abstruse philosophical questions are discussed among that noble people. But no candid observer will deny, that while the Anglo-American is too much given to empiricism, the German is rather too much addicted to speculative dogmatism—too impatient of qualifying theories by practice—too disdainful of the wisdom which comes only from a combination of high thought with active efficiency. Could the speculative tastes and liberal enthusiasm of the one be combined with the robust sagacity and indomitable enterprise of the other, we might inaugurate a form of culture, nobler and more beneficent than the world has yet seen. May we not hope that to promote such a blending and interpenetration of these national characteristics will be one of the cherished objects of Franklin and Marshall College?

III. I cannot but anticipate another benefit from this movement. The teaching in this college, I trust, will always be the result of earnest thinking, of profound research. It is time we had done with the notion that superficial men make the best teachers. It is a notion which has been quite too prevalent in this country; the effect of it has been not only to emasculate our teaching, but to paralyze the studies of our professors and instructors. It has taken from them that stimulus to daily effort, to continued freshness of thought and ardor of inquiry, which ought to have been supplied by their profession. The universities of Germany contain a great practical refutation of this pestilent heresy. The most popular teachers have been their ablest thinkers and profoundest scholars. They—and the remark applies in some measure to the professors of Scottish universities—have shown that a talent for elementary exposition is perfectly compatible with habits of the most devoted and intricate research—that, in truth, each promotes and is promoted by the other.

And the same lesson has been taught in the public schools of this city. There are those present who remember well a modest, unobtrusive teacher, in one of those schools, who was always assiduous and successful, especially in the department of mathematics. He left here a few years since to become a teacher of the same branch in the Academy at Pottsville; and scarcely had he departed, before the scientific men of both hemispheres were startled by the tidings that from that remote and obscure institution had emanated a discovery which was to rank forever by the side of those which have made the names of Kepler and Newton so illustrious. While a resident of Lancaster, Mr. KIRKWOOD was slowly but surely elaborating that law or principle which bears his name. Let his example teach us then, that clear and interesting teaching in the class-room, is not inconsistent with profound thinking in the closet. Let it imprint upon the soul of every professor a sense of the debt which he owes, as an original inquirer, to the department of science or letters which he has in charge. Let it inspire all—teachers and pupils—with the generous ambition to make colleges, here and now, what they were in the days of Abelard in Europe—places all alive with mental activity, places consecrated to the most earnest and independent inquiry.

IV. there is one more feature which will, I trust, always characterize the influence sent forth from Franklin and Marshall College. An institution bearing such a name would be recreant to all the promises its name implies, if it did not encourage public spirit and a large-hearted sympathy with humanity in all its forms and interests. Franklin began every day by asking himself, " What good can I do to my fellow men to-day?" he closed it by asking, "What good that I might have done to my fellow men to-day, have I left undone?" He who lived by such a rule could not be less than the benefactor of all men. He came to Philadelphia a poor apprentice boy. He lived to found its great Library, its Philosophical Society, its University, with many provisions for its material prosperity. He lived to be the almost idolized citizen of his adopted town and State, and the profoundly honored and trusted sage of the whole land. Yet never, when wearing his highest honors, did he forget the humble origin from which he sprang; never did his heart fail to beat with kindness and consideration towards all who needed his succor or his counsel. And John Marshall, too, how kindly and genial was his spirit? How free from arrogance! Be this the spirit that shall ever reign here. Not our Pennsylvania Germans alone, many others have dreaded colleges as nurseries of a silly aristocratic pride—as places where young men, coming from plain but respectable and worthy homes, would learn to despise them; as schools where they would be taught to put scorn upon the institutions of their country or the demands of their age. The gentleman who preceded me has adverted to these impressions. Erroneous as they are, they have continued to live because the follies of young men, and the mistakes of their teachers, have sometimes given countenance to them. Colleges in our land, like Universities in England, have sometimes been slow to feel the progress of society. They have fallen back upon their privileges; they have cultivated too little sympathy with the public mind which it is their office to guide and instruct. They have asked the people to sustain and cherish them; but they have sometimes forgotten that "love is the loan for love." They would have the masses feel great interest in the colleges, but they do not always think it necessary that the colleges should care much for the masses.

Here, we trust, is an institution where such a spirit will be unknown. If there are men who, more than all others, should have pulses throbbing with a large humanity, with a generous patriotism; it is they who are in contact with the fountains of thought, and whose business it is to trace the history of our race in its literature, and in all its struggles for a fairer and happier lot. Let teachers and pupils emulate each other in love for their kind, and in quick sympathy for every effort which would promote the greatest happiness of the greatest number. Let them honor that which is most worthy of honor; and when they go out to mingle with the sons of toil, let them put no slights upon it. Let them own its intrinsic dignity; let them strive that it may be associated with a higher culture; let them so bear themselves that it shall be seen that a college is the true home for large minds and large hearts—for spirits that are enlightened and refined enough for the highest, and kindly and courteous enough for the lowliest in the land.

V. I cannot conclude without expressing my devout hope that this college may be administered in the spirit of *faith.* "If thou canst believe, all things are possible to him that believeth." Aim, friends, at *great things.* Doubt not, that if true to yourselves, God will empower you to do great things for yourselves and for mankind. Lancaster has her model farms and her model mills: why should she not have her model college? not one where there shall be many students badly taught and badly governed; but where there shall be at least a few so taught and so guided that they shall be *model students here* and *model men abroad.* Young men, who form the first classes in Franklin and Marshall College, be models of diligence—be models of self-respect—be models of scholar-like enthusiasm. You shall thus kindle a spirit here which will burn on steadily from class to class, and which will make you benefactors to this college, and to your successors, beyond the bounds of your utmost ambition. Gentlemen of the Faculty! let *nil desperandum* be your motto. Never despair of your pupils, of your Trustees, of yourselves. Let no obstacles dishearten, no failures weary. Be enthusiastic students, that you may be attractive and powerful teachers. Be vigilant, but loving and long-suffering disciplinarians, that you may knit these young hearts to you as with hooks of steel. And, gentlemen of the Board of Trustees, doubt not that, with a liberal steady policy, with unyielding enthusiasm, you shall find your fondest hopes and wishes realized. Cherish this seat of letters, this home of liberal arts; endow it largely with all means of instruction. Let its libraries, its museum, its halls of apparatus, teem with appliances for the best teaching and the best illustrations. As individuals, imitate the noble benefactions which men of successful enterprise in New England think it a privilege to bestow upon their seminaries of learning; and do not permit yourselves to close you eyes on life, without having left behind you here some honorable memorial of your zeal in behalf of Religion and of Learning.

V. A NATIONAL UNIVERSITY.

REMARKS AT THE OPENING OF THE FIFTH SESSION OF THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF EDUCATION, 1855.

BY ALEXANDER DALLAS BACHE, LL.D.

It is the custom of the Association that the President of the last meeting introduce to the members and the public his successor—in the present case too well known to need a formal presentation. Custom has not required the retiring officer to make an address on such an occasion, and I regretted to see that the standing Committee had expected one from me. Had my public duties permitted an attendance throughout the meeting, I would have endeavored at some other time to have met their wishes, but there was no prospect of this, and the pressure of my duties in the Coast Survey entirely precluded the thought of formally addressing the Association.

Allow me now, however, before yielding my place, to say a few words upon the themes which, had opportunity been afforded, I would have desired to bring in a more appropriate shape before you. These are, *a great University the want of our country, in this our time;* and the *common school and college, fragments of systems requiring to be united into one.* The various efforts made to establish a great University within the last thirty years, are well known to you. Recently, the institution appeared almost ready to take a body by legislation by the State of New York, and the several meetings at Albany,* seemed, by striking successively more and more forcible blows in the same direction, to promise that the wedge would be driven home. A great university in the full organization of its faculties of science and letters, and, if you please, of law, medicine, and theology, is, I am persuaded, the want of our country. Our young men in most of the professions realize more and more the deficiencies of their preparation for active life. They rise to a certain point by the force of ability and the strong effort of youth. They have no time for study and research, and immersed in purely practical labor, they go through the same round of effort, until by recurrence it ceases to be informing, and the mind ceases almost to grow. Many now go abroad to seek those opportunities which are not afforded them at home, and more give up in despair at the want of opportunity.

The mode of organization of such a university I cannot now touch upon, but would merely say a few words in regard to the relations which its faculty of sciences should sustain to education generally, and to the progress of science. The advocates of a general mental culture admit, that special schools also are desirable after the great foundation is laid, and while they believe that this latter should always be of the well cemented granite of classics and mathematics, admit that other materials may enter into the superstructure according to the design of the edifice;—that the engineer, the miner, the chemist, the metallurgist, the mechanician, the teacher, the farmer, should have special modes of training;—that history, English literature, moral and mental science, political economy, education, should all receive a higher treatment than is possible in our colleges, the courses of which are too short, and the pupils of which are too young to permit the necessary development. While the University gave thus the knowledge of the higher mathematics, of physics, of chemistry, and their applications, of natural history, geology, and kindred branches, and sustained a just relation to general education, it must lead in the advancement of science through the researches of its professors. Pupils should not only resort to it to learn what had passed into the books of the day, but what had been discovered by its teachers themselves. The living account of active research would thus inspire the pupils, and the professors would have not only hearers but followers. Such an institution requires a large endowment, not to be expended in costly buildings, but in museums, laboratories, collections of nature and art, and in sustaining liberally a corps of professors worthy of the institution and of the country.

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* A Convention of gentlemen, interested in the extension of the facilities of Higher Learning in the United States, was held in Albany in January and March, 1852.

There are in all branches of science enough men in our own country of the highest class of mind to adorn such an institution, and to make it the equal of the best establishments of the old world, to which our youth now repair in such numbers to gain knowledge, it may be at the expense of some things worth quite as much as knowledge. An institution supported by the State, into which admission should be obtained freely, would realize this idea. The corporation* of one of your own colleges has by the progress of material prosperity, the growth of commerce, and of the mechanic arts, and the consequent increase of population, been provided with the means necessary to carry out a great, free university. May the liberality of the designs of its Trustees, be in accordance with the magnificence of the endowment.

A consideration of the origin of our college system, and of the influences under which it has grown up, would show us that it is a fragment, not an entire body. The general diffusion of common school education, its great improvement, the establishment of High Schools and Free Academies, have opened another way to educated life. These two roads, like some railroads which the spirit of competition and speculation have created, run parallel to each other in part of their course in wasteful rivalry. The public purse, through taxation, is made to compete with the individual. The high schools do not fulfil their mission as thoroughly as they might if connected on the one side with the college and university, nor do the colleges fulfill theirs. The degrees authorized and conferred in some of the high schools, as in the colleges, may render the feelings of one institution less cordial towards the other, but are no index of successful competition either in the level of the courses, the abilities of the professors, or the thoroughness of the instruction. Public institutions, which, if connected would coöperate in elevating the standard of learning, are in some cases, it is to be feared, executing a different work. That intellect, various as it is, should be trained only in one way, is a dogma in which I have no faith, and which I think the whole experience of life refutes. If the common school were so organized as to be fit for all, as it is already in some of our cities; if it led to the high school and college, and these to the University, so that our youth who have the time and talent necessary, should find an open way from the beginning to the end of the system, these institutions would help, not hinder each other, waste of time, money, and intellect would be avoided, and the youth of our country be truly educated. England derives her great strength from the numerous foundation schools scattered over her limits through which a boy of intellect can be sure to find a place in the colleges of which her universities are composed; to take his rank in life according to his success there. The hardy spirits thus come to influence in the Law, the Church, and the State. France has recognized the diversity of roads to intellectual greatness, and has provided that they shall all be traveled.

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* The Trustees of Columbia College, by the rise in the value of real estate belonging to the institution will soon have a productive fund of at least two millions of dollars.

I regret to be obliged to touch so imperfectly upon these things, but the suggestion of the topics in such a body as this, will secure their full consideration and a better discussion than I could give them, even if time were afforded for the purpose.

In speaking almost exclusively of intellectual training I have not forgotten that better part, of moral and religious education, but can not now detain you by even a passing thought upon it. The teachings of Science should, and I am convinced, are in the main such as to lead Man to a closer walk with God. He who muses with the Psalmist on God's works, will not neglect the higher musings on his Word.

VI. METHOD OF TEACHING GREEK AND LATIN.

BY TAYLER LEWIS, L L. D., UNION COLLEGE.

(Continued from page 295.)

We repeat the conviction. It is the continual pressure on the mind, the feeling of difficulty, of weariness, of obscurity, in other words, the painful sense of inadequate expression, that comes from the commonly used verbal mode of translating, which is the great obstacle in the way of progress, the great hinderance to rapid and extensive reading. The student never gets a clear conception of the whole thought in the mutually strengthening power of all its parts. Words readily suggest words; but, idioms do not, in like manner, suggest idioms. Remedy this,—remedy it from the start,—and the progress will be as rapid in one respect as in the other. Always accustom the pupil thus to translate from idiom to idiom, and a glance at a sentence suggests its general meaning, and its one best mode of expression, just as promptly as a single word in Greek calls out its corresponding word,—and, if a student has been well taught here, its best corresponding word,—in English, or vice versa. In knowing the idiom, as an idiom, and its true idiomatic representative among English idioms, he has the modern mould into which the thought runs; he has "a *form* of sound words," which is promptly filled with the appropriate idea. The exercise of thus construing is as delightful as the other mode is painful. The pupil begins to think in Greek; and, this thinking is now unincumbered by those cloudy, suffocating media which are neither Greek nor English; being deficient vehicles of the sense in respect to the one, and barbarous combinations of words unknown to the other. We speak here what we do know. We have seen the countenance of an intelligent boy glow with light and pleasure, on being taught, or discovering for himself, how beautifully, how exactly, a Greek sentence may be made to run into English; not as a loose, sonorous paraphrase merely, but its precise *equivalent;* nothing lost, nothing added, nothing weakened or obscured by the transfer. The emotion, the spirit, the state of soul in which it was said, have been as completely set over as the bare thought itself,—if we can call it the thought, aside from these life-giving accompaniments. To show him this,—perhaps in one single well-chosen example,—may be like the sudden removing of a pressure, under which the mind has long been bowed down. Taking this away, not only gives a freedom, but an elasticity, and a strength, unknown before. The soul springs up in its new liberty, and finds in it a stimulus that nothing else could have so effectually imparted. There is, too, the delightful sense of fitness, of harmony; which is, in fact, the elementary principle of all beauty. Yes, strange as it may seem to some, and dry and wearisome as the process has generally been, there is, indeed, in the right construing of a Greek sentence, a beauty like to that of music or architecture. The true English equivalent, once found, exactly holds the idea, and there is thus a stimulating pleasure in the perception that the new vessel, into which it is transferred, though it may be of a very different *form* from the old one, is exactly of the same capacity; in other words, holds just the same content of thought, without deficiency or overrunning.

Now, all this may be reduced to rules as exact as those of orthography or syntax. One chief peculiarity in Greek, as we have said, is its manner of using the participle. A half dozen rules, well framed, would give the student a method of determining, in each case, the one true principle of translation, and enable him to see, at a glance, the best English equivalent. The same might be said of the infinitive. In teaching the best modes of rendering the subjunctive and optative, such rules might be expressed, not in abstract technicalities, such as are found in German grammars, but rather as practical formulas, having special reference to our own tongue. This being once clearly done, any after philosophising would be equally applicable to both languages. But, the first teaching should be purely practical. The canons employed should be a continual reference from one speech to the other. So it is said in Greek, and so we say it in English:—here they use the participle, and, corresponding to it, we use the verb in a subordinate clause,—here they use the participle where we use the infinitive, and vice versa; thus they denote time, cause, instrument, and these are our methods; what the Greeks express by a change of mood, in what is called the *oratio obliqua*, we express by a change of tense; what they denote by certain impersonal forms, we denote by the varied auxiliaries of our potential mood. And, all this might be accompanied by clear illustrations, showing precisely, as it can be shown in every case, how it is that the idea is the same, and the force the same, and the total impression produced the same, though brought out by the use of greatly differing combinations of words.

To give some very familiar examples—the Greek, in a great many cases, uses impersonal forms where we use the personal or direct, and vice versa. Now, this difference must not be disregarded in a translation. A great part of all that belongs to our potential mood is expressed in the manner alluded to. Obligation, possibility, contingency, are denoted in Greek by impersonal verbs. But, to carry the Greek impersonal expression into English is not to translate. What we call our translation may be in English words, but it is not in English idioms, and, therefore, the work is only half done; the thought is only half set over; the spirit, the emotion, perhaps, are not set over at all. For example, δεῖ σε, χρή σε, προσήκει σοι,—*It is necessary that you,*—says the boy, in the wretched dialect permitted in the school-room, —*it behooves that you, it pertains to you,* to do so and so. Now, this is no more English than it is Greek. Teach him to say always, and insist upon his saying always, δεῖ σε, *you must,*—ἔξεστί σοι, *you may.* We might dwell here on the particles and the best directions that could be given for their analysis and expression; but, it would occupy too much time. The hints thrown out are sufficient for our general argument.

And here, since it connects itself so naturally with our main subject, permit the speaker to present a few thoughts on *oral*, as distinguished from what may be called the text-book instruction. In such a teaching by idioms, especially, would this oral method have to be largely practised. The living voice of the living teacher would be in constant demand. But, the remark may be hazarded, that the pure oral is the best mode of instruction in all departments of classical training. We mean by this that the recitation room, and the recitation hour, should not be so much for the purpose of hearing the lesson, as it is called, as for direct and positive instruction. The former object is, of course, an important one. The faithful teacher, however, can easily satisfy himself on this head; it needs no long time to tell whether a boy has been really studying. A few questions, skillfully put, will settle that; and then, the residue of the hour may be devoted to positive teaching, or the pointing out what may have been unnoticed in the lesson just read, and what will present peculiar difficulty in the one that is to come. In this way the hour in the recitation room should be the most profitable one of the day; the one in which the most knowledge is imparted and acquired. In carrying out such a method, all that would be absolutely needed would be the bare text, although books with notes, if accessible, need not at all be superseded. Helps are for the teacher. He may have commentaries and notes in abundance; but, in the recitation room, he himself should be commentator, note-maker, scholiast, grammar, and, sometimes, even Lexicon. The student is to take the law from his mouth; and, in this way, the boy learns Greek, at the same time that he habitually learns another lesson, now so much needed, that is, deference to right authority as the true beginning of all right education, intellectual as well as moral. Necessity has sometimes driven the speaker to this plan. A desire to read with a class some author, or parts of an author, of whom there are no easily accessible school editions, has compelled a resort to the cheap German classics, which contain nothing but the bare text. As these furnish no help to the student, lecturing or oral teaching becomes an absolute necessity. Our decided conviction, however, is, that it is the best mode in all cases. Let the pupil have before him the bare text, accompanied by a memorandum book, in which he is to take down whatever is most important, or whatever he is specially required to take down. The teacher has all the helps he can command. Thus prepared, he devotes a portion, larger or smaller, of each recitation, or of some other hour set apart for that purpose, to the lesson to come. He has, himself, carefully studied it, as he should ever do, even if he had read it, or heard it recited, a hundred times. Even in the first five lines of the Iliad, he may discover something he had never seen before, something, too, which may be well worth telling to his class. Experience in this way has taught him just what his pupils most need, the very places where they will have difficulty, the very points from which they will be most likely to diverge into error. In a clear yet rapid series of remarks, he proceeds to point out such places. 'In that line,' he says, 'there is an unusual *form*,—examine it with special care, and be prepared to tell me all about it,—in that sentence there is an unusual construction; you will not be likely to find it out of yourselves; listen, then, carefully, while I explain it to you, and be sure you remember it under penalty of a mistake, here bringing a double discredit. In that place, there is something worthy of attention in a critical or rhetorical point of view. In another, there is a beauty in the thought, or an unusual neatness or point in a word; try and feel it, he should tell the class, or rely on my judgment in these matters if you cannot, as yet, fully trust your own; you will be able, by and by, to see the beauties and power of the classics; there is before you a rich harvest, if you will labor patiently for it; you shall certainly reap if you faint not.' Such a mode of teaching is, indeed, laborious; it may not always be the best for the more indolent pupils; but, none can be more effectual for the studious and intelligent, as none can present, for such, a greater stimulus to study.

But what need of such labor, it may be said, if the same instruction, perhaps better, can be given from the carefully prepared text-book? We are not at all inclined to depreciate the value of such works, now in extensive use. We believe the oral method, thus pursued, would give them a deeper interest, and, thus, instead of superseding, create for them a greater demand. They would certainly be needed for teachers, if not for scholars. Yet, still might it be said, in answer to this objection, Text-books do not give *the same* instruction, they cannot give the same instruction. It will differ, both in quantity and quality, from that of a faithful, well-prepared teacher. Constant intercourse with a class is required to know just what they need, and just when and where they should be left to themselves. All teachers find that often the text-book fails just where help was most wanted, while it is often given gratis where little needed, if needed at all. This is not from ignorance on the part of the learned commentator, or from a desire to shun difficulties; but, because he cannot always know the real assistance demanded; whilst, at other times, a passage that has no grammatical difficulty, may possess for him a tempting literary interest, which expands his note to a useless size. But, there is a better answer still. Grant that the student may find precisely the same information in the notes of his text-book, still it has not the same value to him as when it comes, just the same, neither more nor less, from the lips of the present teacher. It does not make the same impression; it will not be so long remembered. The very fact of its being in his text-book makes him more careless about fixing it in his memory. It is there in the book, he thinks, and he can turn to it when he pleases. It is enough for him, therefore, that he applies it to his present need, and then dismisses it from his thoughts. All classical teachers are familiar with this. How repeatedly do students look up the same word, the same rule in their grammar? How often are they compelled to run to the same explanatory note in their text-book! Thus, oral teaching, besides having the interest and vivacity of the living voice, calls out more strongly the faculty of *attention*, and the proper cultivation of this is no small part of education. The student should be required, too, to take down what is most important, for the purpose of afterwards making a digest; and, this produces another valuable habit of *scientific order*. Lastly, the practice awakens him to a search for peculiarities, or to be ever on the look-out for them when they come in his way, and this produces that habit, or that talent, the most valuable of them all,—the *critical habit*, or faculty, which may be said to be the grand distinction between the one who will be, and the one who will never be, in any true sense, a classical scholar. This may often be best developed by general suggestive questions, instead of the usual minute explanation. For example, the teacher may content himself by saying, 'There is a difficulty in such a sentence,—there is an unusual form in another,—in such a passage there is a slight peculiarity,—I do not tell you whether it is in the forms or the construction; it is of no great importance, in itself, but, I would like to know whose critical eye will first detect it.' When such critical habit has been well developed, the teacher may, in one sense, regard his work as done. That boy will be a classical scholar. There is something waked up within him which will not sleep again, nor suffer him to be content with the common humdrum of the school grammar, or the scanty routine of reading that completes the common college course. There is nothing in all education like the charm of Latin and Greek, if rightly studied. There is nothing so painfully wearisome when taught, as they often are taught, to the ruin of all classical taste, and to the furnishing an almost unanswerable argument to the enemies of classical study.

But, let us advert briefly to some of the objections that might be made to this mode of construing. What we have called the idiomatic rendering might be admitted to be the more correct method for advanced pupils. But, for beginners, some might plead, the verbal or literal is, of necessity, the only true and practicable one. It is essential to correctness, they would say. When the commencing pupil is required to translate from idiom to idiom, does he not confound what is most peculiar, both in construction and form? Ought he not, therefore, to adhere rigidly to these at first, and until he is familiar with the Greek and Latin idiom, after which he may be allowed more freedom? But, alas! in this verbal way he will never learn that an idiom is an idiom. He may think it a very odd kind of language, to be sure, whose translation requires him to put English words in such strange combinations; but, he never learns it as an idiom in the Greek, distinctly contrasted with a corresponding but quite dissimilar idiom of our own. Hence, he never learns it, in fact, at all; while he is commencing a process which may make him unlearn his own mother tongue, or so barbarize it as to make both Greek and English grammar objects of aversion to him all his life long. We would say then, *From the very beginning*,—from the very first lesson in the Reader,—let it be the standing rule, as invariable as the laws of the Medes and Persians, *good Greek must be rendered into good English*; not only good English words, but good English idioms. Take a familiar example from the Latin. *Liber est Petro,—a book is to Peter*,—says the boy. Correct him at once; and, tell him to translate correctly, thus: *Peter has a book*; or, in certain aspects of the context, *it is Peter's book.* Now, it is English. Before, it was no more English than it was Latin. But, do you not confound case here and government? That may be done by a blockhead of a teacher; but, there is no need of it whatever. The difference of idiom clearly pointed out, and insisted upon, such correct translation may furnish the very best occasion, the most intelligible ground, for explaining to the pupil that that idea of property, or rather of relationship, which we express by an active verb and an accusative or objective case, is, in Latin, denoted by a substantive verb and a dative of the person. There is no need at all of confounding the cases. On the other hand, this true mode of translating is the best means of bringing out their true offices, as most clearly seen in the idiomatic contrast. If the pupil's capacity will hold it, the teacher has now an opportunity to go still farther, and have a little talk about the philosophy of the matter. He may tell him how this difference of expression comes from a different mode of conceiving, or looking at, the same relation. But, the fact, and the correct practical expression of it, should ever go before the philosophy. The *thing itself* should ever be distinctly learned, as a fact, before the rationale is ventured upon. Otherwise it will be like our "inductive Algebras," or "Self-teaching English Grammars," which pretend to give the philosophy of rules, before the rules, and without the rules themselves, when such inductive philosophizing is, after all, merely a childish assuming of something which ever implies the very rule to be explained. It is outward teaching still, but, given in an obscure, an indirect, and an unmanly way.

And this leads to the remark, that in the right idea of a translation, there are three things to be kept in view. There is, *first*, the *thought* or *fact;* second, the mode of conceiving the thought or fact; and third, the supposed accompanying emotion, or state of mind, in the speaker or narrator. The first and third may be, and ought to be, transferred. We may have the thought, the whole thought, however remote from us the language in which it first appears, or however poor or imperfect the one to which it is to be transferred. There will always be some way of bringing it out. So also, we may have, in some way, set over in words, all that was expressive of the accompanying emotion, and which is ever more or less connected with the relation of the thought, to preceding or expected thoughts in the sequence of sentences. Hence the chief means of expression for this third element, will consist in the right use of emphatic forms and constructions, and especially in the management of those little joints of speech, called particles—insignificant, indeed, in their appearance, but often containing more of the soul of a sentence than all the other words in it. The second thing, or what we have called *the* mode of conceiving the thought, cannot be strictly transferred, if we would preserve the idiom of each language; for it is this mode of conceiving that gives rise to the idiomatic difference. A different view of the relations between different parts or aspects of the thought, which is what we mean by the *mode of conceiving*, gives rise to different combinations in the words,—that is, to different idioms. Now these cannot be set over without destroying the very idea of translation. It would not be a transfer of a thought *clean* out of one language into another, but the taking up, with the thought, an actual part of the one language, or of what is peculiar in one language, and transplanting it into another and a foreign soil, where it must, in general, possess an unnatural and uncongenial existence.

As a general rule, then, the idiom is not to be transferred. It would defeat the very idea of translation. There are, however, special cases, where it would be not only allowable but desirable. In some cases it may be a matter of importance to transfer the very genius of one language into another; thereby to improve the latter, or give it a character it might not otherwise possess, and which it is desirable it should possess. This may be said of the translation of those works that are expected, and justly expected, to have an important influence on the deepest thinking of the nation into whose literature they are thus, not merely transferred, but *transplanted*. In such a work, therefore, as our English translation of the Bible, it was well to make the most of those pure Anglo Saxon idioms that are its beauty and its power, and yet to set over also many of the rich Orientalisms that had become consecrated by the thought, and would not well part with it, or allow it to assume another and a foreign dress. And so we may say generally of our religious and devotional language drawn from the Bible. An English clergyman, whose life and jests form the subject of a late popular volume, objects to keeping in our religious vernacular, such phrases as "putting on the new man," the "armor of righteousness," &c. They struck him as evidences, not only of cant, but of "penury of thought and expression." We cannot agree with his jesting Reverence, nor with the reasoning of the more serious John Foster, on the same subject. It seems to us as much at war with a true philosophy as it is with a true piety.

In such a work as the translation of the Scriptures, there is, oftentimes, a real value in the form, as well as in the idea, and, therefore, a demand for the preservation of both. Hence, too, the very fact of their extreme remoteness gives an interest to some of these Oriental idioms; their exceeding beauty lends a charm to others; there is besides, a moral value in these archaisms, as connecting us with the piety and pious thought of past ages of the Church; and for all these reasons it was well to preserve them in our English Bible. They were at first strange, but they have enriched our tongue, and thus become a part of it. Many of these beautiful exotics, whose parent land was at the distant rising sun, now bloom in our Occidental garden, and in all that vigorous health which shows that this Divine Book was made for the West no less than for the East. They are now *our* idioms; and truth, as well as piety, revolts at the thought of parting with them.

A somewhat similar view may be taken in respect to some few standard works representative of an age; such as the Homeric Poems, and the early Ballad Literature of a land; but, in general, there can be no other true idea of a translation than the one we have given. It cannot transfer idioms without destroying such idea, and this should be a fundamental principle in the ordinary construing of the schools. Both languages should be kept in their integrity. Good Greek into good English. Any other principle would only lead to the destruction of all consistency in theory, and to an indefinable chaos in practice.

Idioms cannot be set over; but this only furnishes a stronger reason why their philosophy should be explained, when once the fact or difference itself, is clearly recognized. And such explanation, when the proper time comes for it, every good teacher should be careful to give. A Greek idiom may be better than an English idiom, better we mean *per se*, and yet the latter should be preferred in a translation, or it is no true translation. That conception of the fact or thought from which the one idiom arose, may be more philosophically correct than that which gave birth to the other; but this only furnishes a more admirable occasion for the faithful teacher to hold it up, and the reasons of it, before his pupils. Take again our old example which seems to answer every purpose, *ἀλγεῖ τὴν κεφαλὴν*—*his head aches.* There is a deeper philosophy here in the Greek than in in the English. With the Greeks in general, feelings, states, affections, and sometimes even outward partial bodily relations, were *conceived* as belonging to the whole personality. It was the man who ached, and not the head or the tooth,—the man in his entire individual personality, and not any particular member. It was akin to their doctrine of the State, or Paul's idea of the Church. The pain might be in the head causaliter, or seem to be there localiter, and therefore this subordinate fact, or seeming, was to be denoted, though by an oblique case; but it was really *the man* who ached, the *ipsissimus homo*, and therefore they very correctly made him the subject of the verb. *We* say *the head aches*, *the tooth aches*, as if the head or the tooth were a personality per se, and could ache of itself, whether there was a man attached to it or not. We may doubt the philosophical propriety of our mode of conception, and consequent expression, but we *must* employ it as long as we talk English, or translate into English. There are, however, cases in Greek in which this mode of conceiving is carried too far—even to the very verge of absurdity—and then we have the advantage of them. In such examples the boy may be told that our idiom is the better one, and why it is so. Thus the Greeks apply this favorite usus loquendi, not only to inward personal states, but to outward personal, and even impersonal relations,—even to a man's clothing, or to his armor. Instead of saying the *quiver was hung* upon the man, they say, *the man was hung* the quiver. This is strange, but sometimes it becomes, to our ears, absurd and even ridiculous. The pupil is reading Aristophanes, and falls upon the odd expression, ἐξεκόπη τὠφθαλμώ, *he was knocked out as to his two eyes*, instead of, *he had his eyes knocked out;* or he is reading Æsops Fables, and comes across the still more surprising sentence, ἀλώπηξ τίς ποτε ἐν παγίδι ληφθεῖσα τὴν οὐρὰν ἀπεκόπη, "Once upon a time a fox being caught in a trap, *was cut off* as to his tail." Even the most rigid verbalist would hardly insist upon his verbal translation here. The whole animal suffered the pain undoubtedly, but it was really the tail that was cut off from the fox, and not the fox from the tail. In Greek, this mode of expression had become rigidly fixed to the real or implied personality. Thus employed, it conveyed, in the main, a profound philosophical idea; yet when extended too far, as sometimes the symmetry of a sentence, sometimes the mere phonetic harmony, tempted them to extend it into the outer relations, it became absurd.

To take other familiar examples of difference of idiom—with the Greeks *recollecting* is active; *memory* is reflexive or middle, as partaking both of action and passion; *forgetting* is also middle, and not unfrequently passive, or expressed by the verb taken impersonally with the person, instead of the thing, for its passive object. In English, *to forget* seems to be an active verb, as much so in use and appearance, as to *think*, to *love*, or to *strike*. But what does a man *do* when he *forgets*—what kind of activity is there in such a spiritual process? This surely is a problem that might puzzle all psychology, and all psychologists from Solomon to Kant. It would seem impossible that any language could have so absurd a development; and so, when we come to examine carefully, it is found that the Anglo Saxon word is really a negative, or the denial of an action, and that its first syllable is a negative particle. To *for-get* is *not to keep*, or to fail to keep. Such familiar examples are enough to show that this idiomatic method of rendering, instead of keeping out of view the philosophy of language, does actually give the faithful teacher the best and most numerous occasions for dwelling on it.

He may go farther than this. When a fair opportunity presents itself, he may go back, not only from the thought or fact to the conception, or mode of conceiving the thought or fact, but also back of this to the national or ethnological temperament in which it must have had its historical origin. Thus, for example, the Latins said *agere gratias* to *act thanks*, as it may be rendered verbally, or *to thank*. More than this, they said *agere vitam*, *to live* and even *agere animam*, *to die*. What would seem still more strange to our Christianized conception, they said *agere poenitentiam*, *to act penance*, *to do repentance*, and the phrase has come into the Vulgate translation of the Bible, and made no little controversy, —far more than it need have done if we would only attend to the fair principles which should guide us in judging of a translation. The Romans could not well talk in any other way. This idea of acting or *doing* everything was in their very nature. All was outward, objective. They could not well conceive of anything, except as a *doing* something. The very name *poenitentia* implied pain, and that chiefly from without, as *penal* in some form. Hence they could, in no other way, approach that subjective idea which is in the Greek, μετάνοια. There is another Latin word, (*resipisco*,) sometimes employed, but it is a poor and inexpressive term, having none of the pungency of *poenitentia*, whilst it falls far below the Greek. Doubtless the early Christian feeling did, to some extent, convert the Latin phrase from its heathen objectiveness, and bring it nearer to the more spiritual Greek conception. But in later times this old Roman notion again got the upper hand, and brought in the numerous mediæval *pains* and penances. It is not too much to say that much of the Roman Catholic ascetecism had its nurture, if not its birth, in this Latin phrase. It appears so different, both in form and spirit, from the New Testament Greek word it is used to translate, that Protestants accuse the Romanists of willful perversion. But this is harsh. It came honestly into the earliest Latin Bibles from the very genius of the old Latin language. The readers of the Vulgate, may give it the old Roman sense, or the Christian sense, according to the predominance of piety, or of some other spirit, in their minds. But is it not at least a fair question, on the other hand, whether our Protestantism may not have gone too far towards the other extreme, and made the idea of penitence so wholly subjective, that it is in danger of fading away into a mere intellectual abstraction, a mere *change of thinking*, totally abstracted from the inseparable Bible ideas of pain and humiliation. Nothing would so clearly show how much our thinking, yea our very religion, is affected by language, as the history of this and some similar phrases. Nothing proves more clearly the folly of those who would regard the study of language as the mere study of words, that is sounds, as they contemptuously mean, to the neglect of what they call things, or outward material realities.

We would conclude our somewhat extended discussion with a few practical inferences. And in the first place, a fair experience has convinced us that there is hardly any scholastic exercise that presents a better mental discipline than the constant practice of written translations from the Greek and Latin, made with the utmost care, and on the principles already unfolded. Allusion has been already made to its importance, in the study of our own language. When rightly done, there is no exercise in English composition that surpasses it. We mean that part of composition which has regard to the choice of best words and phrases; and there might even be assigned to it, without extravagance, no secondary rank in the very moulding of the conceptions, or as one of the chief suggestive aids to right thinking itself. What a fund of thought, of thought breeding thought in all directions, has a student acquired in the faithful well directed effort at finding the very best English words for the noble Greek words in a drama of Aeschylus, or a dialogue of Plato! How surpassingly fruitful of ideas must it be when, in a more advanced stage of his course, the same method is applied to an epistle of Paul, or the Gospel of John! But there may be taken a more general view of its effect upon the mind. The importance of mathematical discipline no one would think of calling in question. And yet we may well doubt, whether, in any mathematical exercise, there are brought into action, vigorous and healthy action, more powers of the human soul, than in the right study and translation of a difficult Greek sentence, viewed merely as a problem to be solved. The apprehension of its general structure,—the perception of the precise idioms presented—the selection of the best words in one language to give the life as well as the general meaning of those in another,—the consequent examination of primary senses and metaphorical images,—the study of the subtile relations of thought, and of the kinds and degrees of emotion, involved in the use of the particles—the comparison of leading and subordinate ideas as combined in that unity which, when rightly understood, is the charm as well as the power of a long Greek sentence, and which we find it so difficult to preserve unbroken in our looser, less organic English—all this certainly furnishes, yea demands, a severe mental exercise that may well be compared with any that comes from the highest Geometry, or keenest analytical Calculus. The study of the mathematics renders the mind *acute*, gives it intensity and concentration; but we may fairly doubt whether it is equal to the proper study of language, for expansive and suggestive power.

Written translations thus studied, should be a frequent exercise of the school-room. The rules should be clear, practical, and rigidly enforced. For such a purpose, general formulas of this kind may be engraved on cards, or kept as standing mementos on the black-board.

Let there be nothing in the Greek unrepresented in some way in the English.

Let there be nothing in your English which is not a fair representation of something in the Greek.

Employ the most idiomatic expressions in one tongue to represent the corresponding idioms in the other.

Express the thought, the whole thought, and nothing but the thought, in good, plain, nervous English, such as should be used if we had to give the same idea in our own tongue without any appearance of translation.

In the selection of single words, pay the strictest attention to the primary or radical images in both tongues, so as to have, if possible, a correspondence in the pictorial as well as in the abstract meaning.

In all such cases, where there is a fair choice between two or more English words, prefer the purest Anglo-Saxon to those from Latin roots.

Be prepared to give your reasons for every word and phrase employed.

The best translation once determined, either by private study, or instruction in the recitation room, no departure from it to be allowed in subsequent readings or reviews, unless the student can show that his amendment is a real amendment, according to the principles here laid down.

Some might object that such a course, and especially this latter requirement, allows too little freedom of thought. It is at war with the modern doctrine of development. Boys, they say, should be rather encouraged to "express their ideas in their own language," and not learn things parrot-like, or be compelled always to say the same things in the same way. This sounds very fine; but, without going into any further argument on the matter, we would simply say of such a view, that our experience is against it. However fond we may be of democracy elsewhere, there can be rightly none of it in the school-room, any more than in the camp. *There* should reign the most perfect autocracy, or the imperium of one governing mind. No freedom of thought, if by that phrase is meant the *right* of thinking *wrong*. No thinking *for ourselves;* but, ever thinking for the truth, whether old or new, whether coming from the inner light, or from outward authority, or from both combined. The conclusive answer to such popular objections may be summed in two short propositions. Rational submission to true authority, in the start, is the best security for genuine mental independence in all after life. The only genuine *free* thinking is that which comes from *right* thinking, by whatever means this may be secured to us; whether from our own unaided study, or the guidance of older and better instructed minds. On both of these propositions we are willing to appeal to results, as manifested in the subjects of these two different modes of training.

Another application of our general principle would present the converse of the one on which we have just been dwelling. Right translation from Greek to English is the most ready and effectual mode of learning how to translate from English to Greek; that is, of writing Greek correctly. The idiomatic mode of rendering secures this at every step. The boy who has been accustomed, from his first lesson, to read Greek and Latin as he ought, will, from this very exercise, learn to write them *pari passu*. What has been already said is sufficient to set this in the clearest light. Greek and Latin are sometimes studied for years; there is acquired a tolerable facility of construing in the verbal method; but, when the pupil comes to write the language, if he has never practised it before, he finds, in his first effort, that he is as ignorant of its methods as he is of the Sanscrit or the Mohawk. The reason plainly is, that he has studied only words, or grammatical constructions, regarded alone in their Greek aspect. He has never read from idiom to idiom. Had he invariably done this, it would have been just as easy, and we may say just the same, to render the English idiom into the Greek as to render the Greek idiom into the English. One would habitually suggest the other, just as simply as single words suggest single words. The principle is so obvious, and the application so easy, that it is indeed a wonder that it should have been so much overlooked. It is simply inverting a process; a coming back by the same road on which we traveled to a certain place. In this way alone does the pupil learn to think in the language. Thought becomes the counterpart of thought, instead of word being merely the counterpart of word. In truth, as has been said before, but it will bear to be repeated, idioms, when well understood, and made the representatives of each other, have a stronger hold upon the memory than single words, and do more readily enter into our spontaneous thinking. Illustrations here would be simply inversions of those we have already employed. Take, however, another and a very familiar one. A boy has to translate into Greek the apparently very common and easy sentence, *they threw stones at the man*. He begins, ἔβαλον τοὺς λίθους, &c.; but, it strikes him, perhaps, that it does not sound quite Greek-like. There is no error in form or syntax, that he can detect. Still, it is not satisfactory; and yet, he knows no other way. Had he been carefully taught from the beginning, and made familiar with it by correct translation every time the case occurred, it would have become a part of his habitual thinking that the Greeks make the person, or thing thrown at, and not the thing thrown, the object of this verb; or, rather, had he always read the Greek sentence right, it would have come to his mind without an effort of thought at all. The one idiom would suggest the other, just as readily as the word λίθος suggests the word *stone*, or the word βάλλω the word *to throw*, and he would write at once as correctly as Xenophon has it,—οἶ δὲ αὐτὸν τοῖς λίθοις ἔβαλλον, &c. These are very familiar examples, but they fully illustrate our position. Easy as they are, the pupil who has been wrongly taught is at a loss about them at every step. He follows on, word for word, after the English construction; he has, perhaps, the single words rightly selected; the forms seem correct; yet, still it looks strange. The Greeks do not talk in this way. Thus much the reading and observation of an intelligent boy may suggest to his mind. But, it is not enough to explain the puzzle. He does not know why it will not do, and all for the reason that this simple Greek idiom, and hundreds of other simple Greek idioms, have lain hid, for years it may be, under this bad mode of translation. He has passed right over them. He has never been accustomed to bring an idiom in one language, face to face with the corresponding idiom in another, and thus to make the one form of words the invariable suggestor of the other.

His mode of rendering has actually covered up the English idioms; or, rather, he has used no English idioms at all, only English words unnaturally forced into Greek forms of thought, thus losing the peculiarity, and, in this, the power of both languages. The right methods of turning English into Greek have been lying all along his path; but, utterly unnoticed, because there was nothing to bring them, and keep them, constantly before his mind. Hence, has he gone on for years without making substantial progress. He has not passed even the gate of the outer court; much less has he found access to that rich treasure of literature whose acquisition was the chief motive of his long and laborious study.

VII. DEBATING, A MEANS OF EDUCATIONAL DISCIPLINE.*

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"ARISTIPPUS," says an ancient writer, "being asked what boys ought to learn, said: '*What they will have occasion to use when they become men.*'"

If this famous answer of the old Greek, which by some is so liberally interpreted as to embrace almost every kind and degree of culture, by others so exceedingly limited in its application as to exclude whatever falls without the circle of the most vulgar utility, be founded in wisdom,—if, in other words, the education of youth should be at all governed by a reference to the wants of practical life in after years, there can be little doubt that debating, properly managed, might be among the most valuable of educational agencies. Hence what are called debating associations have, in our view, a peculiar interest. Capabilities they certainly have in the cause of education, which, though undeniably great and easy of development, are rarely realized, because rarely brought into full and efficient exercise.

This, at first, may seem an extravagant statement; for, after excepting every case that ought to be excepted, the history of societies established for this purpose presents, for the most part, little beyond a record of desultory doings, devoid of serious or elevated purpose, unsupported by proper preparation, without intelligent regard to parliamentary usage,—in short, without any aim, study, process, or result beyond the requirements of an ordinary pastime. With such associations, therefore, as a general thing, we connect the idea of amusement—often that of dissipation, rather than that of mental improvement. We are hardly able to conceive of them as regular, reliable means of intellectual discipline. Hence we find, or seem to find, for them no fixed position in our ordinary routine of scholastic training. They do, indeed, spring up spontaneously, as it were, and cling around our higher institutions of learning; but even there they exist as things incidental, forming no essential part of the main design,—encouraged, it may be, but not enjoined,—guarded, rather than governed, by those in authority.

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In such connection, it is not at all surprising, that debating societies should become a source of solicitude,—often even a grievous annoyance to tutors, professors, and others responsible for the conduct of students. Just at the age when passion is in perilous conflict with principle; just in the circumstances, where opportunity readily seconds desire, is it wonderful that youths, forming independent organizations, owning no allegiance, as such, to the college or academy with which they happen to be connected, should sometimes be guilty of excesses which older, and what ought to be wiser heads, are daily practicing under the influence of even less temptation? These societies, it is alleged, furnish a plea for late hours. They divert students from their regular studies. They make young men captious, conceited, and opinionated. They often lead people into the habit of arguing against their own convictions; and, finally, if nothing worse, they do, at least, absorb, without furnishing any proper equivalent, a large amount of most valuable time.

The most obvious answer to these and all similar objections is that which ought to occur to every thinking mind, namely, that arguing against a thing from the mere abuse of it is not very satisfactory logic. Such argumentation, if allowed to have weight, would soon destroy our confidence in almost every thing. The exclusive study of mathematical science is said to generate a skeptical spirit. Shall we, therefore, banish mathematics from the college curriculum? Many pages in the works of the most celebrated writers of ancient Greece and Rome are polluted with thoughts and expressions which, though they give indication of the moral tastes and principles of the times, and, therefore, subserve important historical purposes, are, nevertheless, but too well calculated, in themselves, to exercise a demoralizing influence over the minds of youth. Shall we, therefore, handle none but *editiones expurgatæ*, or, more sweeping still, join in the clamor for the total expulsion of classical studies? Colleges necessarily withdraw from home, and, consequently, from all the saving influences of home, large numbers of young men who, being, in a measure, unavoidably left to themselves, are sometimes, in spite of the best regulations and the most watchful supervision, betrayed into practices sadly offensive to good taste, if not utterly destructive of good morals. Shall we, therefore, declaim against all collegiate establishments, and absurdly hope, by their extinction, to extinguish evils that belong not exclusively to the condition of students in a college, but rather to the condition of humanity at large ? Lawyers, from the very nature of their position, are under constant and almost irresistible temptation " to make the worse appear the better reason ;" and often poor human nature, in the person of a lawyer, is found shamefully dealing in the arts of sophistry, and thereby disgracing one of the noblest of professions. Shall we, therefore, cry out against the study of law, and leave the advocacy of our legal rights to the tender mercies of chance ?

The truth is that debating societies, or debating classes, composed of students belonging to a college, are, like many other good things, both in and out of college, very liable to abuse. But cutting off the abuses by crushing the societies, seems like curing diseases by killing the patients. It is not quite clear, moreover, that they could be crushed entirely, even though it were admitted that they ought to be. The demand for them seems to grow out of the very nature of our mental constitution. We all naturally love debate. Whether it be desire of truth, desire of victory, or mere love of contest,—whatever the motive, or combination of motives, under which we act, certain it is that we all eagerly engage, or readily give ear to others engaged, in controversial encounters.

Accordingly, almost every age and every country, blessed with any tincture of literary culture or philosophical spirit, has had its debating societies,—has had, we mean, its meetings or conferences, under some name or other, for the free and frequent discussion of topics of common interest. Oral discussions were among the earliest and most effective means of eliciting truth and diffusing knowledge. In all the schools of all the various philosophical sects of classical antiquity, open disputation was the favorite method of testing the soundness of theory, and of detecting and exposing the disguises of error. To what extent, and with what deplorable excesses, it became prevalent in later ages, in almost all parts of Europe, no reader, perhaps, requires to be informed. What multitudes of clubs, societies, and associations, under every possible appellation, have sprung into existence, in recent times, for the avowed purpose of general discussion, all the world knows ; for all the world knows what mighty changes and commotions, social, civil, and religious, have grown out of those apparently transient conflicts of opinion, and what numbers of master spirits have thence derived the first real consciousness of their own strength,—the first effective impulse to extraordinary achievement.

It is no part of wisdom, therefore, in college authorities, to attempt the suppression of debating societies. It is no part of wisdom to look upon them with an eye of discouragement or disapprobation. They are capable of splendid service in the cause of education; and not only splendid, but peculiar; a service, in fact, for which it is impossible to find any sufficient substitute. Their appropriate sphere, moreover, seems to be in connection with collegiate institutions. There, at all events, we have a right to expect from them the best possible results; for there they may have the benefit of wise and constant supervision.

But the supervision to be useful, must be *authoritative.* It must guard against the introduction of abuse; but this it can not do efficiently, if its power is known to extend only to the general duty of watching and warning. If the theory be that debating societies, or debating classes (for here names are indifferent), are perfectly independent organizations,—that they may, at the pleasure of students, be multiplied indefinitely,—that, in them, or during their exercises, presidents and professors, tutors and students, are all on a level,—that what, during a recitation in the morning, would certainly incur censure or expulsion, would, during a debate in the evening, be quite out of the reach of official interference,—if, in fine, the debating societies are to be accounted, as it were, co-ordinate branches of the college, and subject to no checks or limitations not self-imposed, it would be little short of a miracle, if these organizations, instead of being always a means of discipline, should not often become a means of sad dissipation.

It is, however, no part of our present purpose or duty to undertake to settle the boundaries within which the liberties of debating societies, attached to colleges or other scholastic institutions, should be restrained. We claim no sufficiency for such a task. We volunteer nothing, in this way, beyond the opinion that they ought to be classed among the regular means of educational development, placed under the same systematic guidance, and made subject to the same salutary rules and regulations. Thus managed, beside the main results at which they aim, not the least of their valuable uses would be that of furnishing, from time to time, a tolerably fair index of mental growth and discipline.

But the topic we are here discussing, namely, debating as a means of educational discipline, by no means confines us to such societies only as are found within the precincts of collegiate establishments. There are thousands of societies all over the country, far removed from any seat of learning, and owing their origin entirely to a laudable ambition on the part of those composing them to excel, or, at least, to acquire passable skill in public discussion. They operate as schools for mutual instruction, and, as such, may be fairly counted among the educational forces of the country; as such, moreover, whether otherwise they fulfill our expectations, or not, they possess that indispensable requisite to all successful teaching, the power of awakening and sustaining attention.

Such associations, assuredly, should elicit our warmest sympathies. Consisting, for the most part, of young men who have either wanted or wasted opportunities of early and regular education, who, many of them at least, under the stimulus of noble aspirations, are longing to make the future atone for the past,—

——— *fatis contraria fata rependens,*

who, in a word, are anxious to be something in the great family of mankind beyond mere "hewers of wood and drawers of water," they deserve encouragement, because their impulse is worthy, and because out of such encouragement may come forth, in time, men fitted to adorn and to benefit the race.

Many things, no doubt, are done and said in these societies which might better be left unsaid and undone; many manifestations of ignorance, frivolity, and conceit, are therein witnessed, which might well recall the pertinent prayer of Burns—

O wad some power the giftie gie us
To see oursels as ithers see us!
It wad frae monie a blunder free us,
An' foolish notion!

and yet, with all their faults and liabilities to fault, they offer such means and motives to intellectual development as can not fail, when fairly considered, to outweigh all objections that can be urged against them. This is our firm conviction. Nay, we take higher ground still. We think them not only liable to no insuperable objection, but even capable of a service, in the cause of education, scarcely attainable in any other way. Many considerations induce this belief; of which, however, these four are the most prominent:

First, because they are, when rightly managed, the best possible schools of logical disputation.

Secondly, because they furnish the best opportunities for the practice of deliberative oratory.

Thirdly, because they force us, as it were, into the acquisition of a great amount and variety of useful knowledge.

Fourthly, because they lead to a familiar acquaintance with the practice of parliamentary law.

1. The first of these several reasons, or considerations, is founded, of course, upon the assumption, that logical disputation is, or ought to be, ranked among the branches essential to a complete education. This may not be readily admitted, because it may be easily miscon-

ceived. It may by some, for instance, be thought that we are here favoring, if not openly advocating, that kind of disputation which begets a captious, rather than a critical spirit, and which ultimates always in producing ready wranglers, rather than ripe debaters. This is far enough from being our intention. The thing here intended is *logical* disputation; that is, disputation begun, continued, and ended in the spirit that befits the sober investigation of truth,—that sort of disputation which is the natural and necessary outworking of the soul in the earnest search after knowledge,—which courts the guidance of enlightened reason, ignores the dominion of pride, passion, and prejudice, diligently seeks the real which ever underlies and explains the merely phenomenal, and limits its efforts only by the discovery of fundamental principles, or by finding those barriers beyond which human intellect is forbidden to penetrate. This, and this only, we mean by logical disputation; not captious caviling, which is an abuse of reason; not idle logomachy, which is an abuse of words; not angry altercation, which is an abuse of feeling; but a free, fair, and vigorous exercise of those rational powers whereby we are set above the whole brute creation, and which, being capable of indefinite improvement, we are bound to cultivate to the utmost.

Thus understood, thus directed and applied, logical disputation becomes a noble art. It is the very touchstone of truth,—the safeguard of the mind. By it we are led to sift, to weigh, to compare, to analyze. By it we are taught to avoid partial views and hasty conclusions, to measure with others, and, under the force of active competition, our own strength, and so to find the level that forbids an overweening confidence. By it we are guarded equally against the snares of sophistry and the assaults of dogmatism. By it, in brief, we acquire the invaluable habit of "proving all things, and holding fast that which is good."

But logical disputation, like every other art, derives its perfection from culture. It rests upon the basis of a science, which, however grossly abused in former times, however little appreciated in our own day, deals deeply with the fundamental laws of thought, and discloses the nature of that mental process according to which all reasoning appears to be conducted. Yet, happily, no one has need to despair of attaining skill in the art of logical disputation, merely because he is little versed in the abstrusities of logical science. Nothing is more common than proficiency in practice coupled with *de*ficiency of theoretic knowledge. Men reasoned, and often reasoned well, long before the time of the illustrious Stagirite. Not the least, indeed, among the many, many proofs of beneficent design in the all-wise Maker of man, is the remarkable fact, that He has made su periority in *art* possible even to those who have no claims whatever to profundity in *science*.

We shall be grievously misunderstood, however, in the drift of these observations, should they be taken by any one as an argument against the study of Logic, as a science. We are far from regarding that study as useless. Yet (to use the words of another) "to explain fully the utility of Logic is what can be done only in the course of an explanation of the system itself. If it were inquired what is to be regarded as the most appropriate occupation of MAN, *as* man, what would be the answer? The Statesmen is engaged with political affairs; the Soldier, with military; the Mathematician, with the properties of numbers and magnitudes; the Merchant, with commercial concerns, etc.; but in what are *all* and each of these employed?—employed, I mean, as *men;* for there are many modes of exercise of the faculties, mental as well as bodily, which are in great measure common to us with the lower animals—evidently, in *Reasoning*. To understand, therefore, the *theory* of that which is the appropriate intellectual occupation of Man in general, and to learn to do that *well*, which every one will and *must* do, whether well or ill, may surely be considered as an essential part of a liberal education."*

Fully concurring, as we do, in this view of the matter, our words of encouragement to those who, because they are wanting in theoretic, are ready at once to despair of all worthy success in practical Logic, can not well be misconceived. They are designed to favor neither ignorance nor presumption. He that aspires to the character of an accomplished disputant, if not utterly destitute of all natural qualifications, will not fail to perceive in systematic Logic many important uses. The same sagacity, under the light of modern progress, will save him from that unaccountable delusion which, mistaking the *means* for the *end*, and utterly perverting and misapplying the science, produced, in the middle ages, that mischievous race of philosophic triflers, whom history painfully portrays under the appellation of scholastics; men whose "Logic," says Enfield, "was rather the art of sophistry than that of reasoning; for it was applied to subjects which they did not understand, and employed upon principles which were not ascertained. Their whole business being disputation, they sought out such thorny questions as were likely to afford them sufficient exercise for their ingenuity. Their whole care was to conduct themselves, in the contest, by the rules of art, and their whole ambition to obtain the victory." Against such Logic as this we have every thing to say; but where opportunity is afforded for the study of Logic, in the truest and best sense of the term, it is certainly great folly to let slip the chance of becoming acquainted with its peculiar resources; but greater folly still, where the opportunity happens to be denied, to sink down under the weight of that deficiency, and so relinquish all hope of useful or honorable attainment.

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* Whately.

If, however, it be conceded that logical disputation is an art so important as justly to claim rank among the essentials of a finished education, it may still be inquired whether debating societies are likely to furnish the best possible facilities for cultivating it.

Disputation, to be useful, must be orderly. Where each disputant is at liberty to take his own course, subject, that is, to such restraints only as an ordinary sense of propriety may impose, extraordinary, indeed, must be the wisdom and moderation of that company, in which debate, if at all earnest, is not likely to become the source of strife rather than the channel of truth. For this reason we have less confidence than many in what is called the Socratic method of reasoning. That method which derives its name, as is well known, from the illustrious person who adopted it in his philosophical discussions, and which, for his purpose, was an admirable instrument of reason, consists in propounding a series of questions, the answers to which are made by the adroitness of the querist, to form a chain of concessions, whereby an opponent is bound fast to some unexpected and previously resisted conclusion.

It is sometimes claimed for this mode of discussion that it is superior to all others, because (among other things) it has all the ease and sprightliness of common conversation,—because it quickens attention, and keeps perpetually alive a certain necessary interest,—because it is free from the limitations and restrictions of formal debate,—last of all, and best of all, because it leads one into correct conclusions by merely indicating the right mode of exercising his own intellectual faculties. There is, doubtless, considerable force in these suggestions. Where, especially, you have a wily, wordy opponent to deal with,—one of those slippery spirits, to find whose real position is

> "Like following life through creatures you dissect,
> You lose it in the moment you detect,"—

this closely-cornering, closely-clinching process of question and answer is a most excellent contrivance.

But, after all, good as it is for particular purposes, pleasant as it seems, when regarded in the distance, this method appears to us not a little objectionable, as a means of discipline, and even as a means of producing conviction. If you would convince the understanding, you must offer no violence to the feelings. But how could you more effectually do this than by surprising your opponent into the toils of a wily logic? In so doing, you do, indeed, gain a temporary triumph; you do, indeed, it may be, silence for a moment the tongue of sophistry or conceit. But you do more than that; you generate a brood of antipathies; you shut up the avenues of truth to the soul of your adversary, and make him (possibly many who sympathize with him) reject truth, because he rejects you as the medium of it.

Even in the most judicious hands, this method is liable to ultimate in dissension. The dispute between Socrates and Protagoras, recorded by Plato, is a case in point. Socrates, in the midst of a highly respectable company, was plying with singular felicity his famous process of interrogation. He had already gained admission after admission, till, at length, the subtle sophist was forced into a position diametrically opposite to that which he had occupied in the outset of the discussion.

Protagoras sought refuge in diffuseness. Socrates insisted upon brevity. The former became impatient of what he thought to be improper dictation; the latter, professing to be unable to follow long speeches, refused to proceed unless his demand should be complied with. Then, suiting the action to the word, Socrates rose abruptly to depart.

Hereupon the master of the mansion, a wealthy Athenian, who was deeply interested in the discussion, eagerly seizes him by the hand, and, finally, prevails upon him to remain. The altercation, however, proceeds. Several of the company undertake to mediate. One urges the distinguished disputants not to *quarrel*, but to *argue*. Another, who is called "Hippias, the Wise," after alluding to the disgrace that must certainly attach to an angry altercation between such persons, on such an occasion, and in such a place, offers a suggestion which, whether he was wise in other respects or not, indicates a fair appreciation of the difficulties of an unregulated debate. "Be persuaded," said he, "by me to choose a *moderator*, *president*, or *prytanis*, who will oblige you to keep within moderate bounds on either side."

It is substantially this advice which we are here laboring to impress. Not that we would disparage the Socratic method as such. That method, as before intimated, has its appropriate place and its appropriate uses. In those ancient philosophical conferences, for example, where one leading mind conducted, as it were, the reasonings of the rest, it had a certain fitness, a sort of class-room brevity and directness, which belongs rather to schools under the authority of a master than to assemblies of equals engaged in public and formal discussion. It was good at Tusculum, but ill suited the Senate.

The opinion, therefore, entertained by some, that a far better exercise of the reasoning powers may be secured from conversational discussions, in which the method of Socrates is predominant, than from any disputing societies, however organized or managed, is one in which we find ourselves quite unable to concur. For such young men, generally, as most need and seek this kind of improvement, it would, we are assured, work unfortunately in many ways. It would, as we have already seen, even in the best hands, often be fatal to that freedom from angry excitement which is so essential to the right exercise of intellectual force. It would, in some, beget insuperable timidity and aversion, because of its operating like a trap to the understanding, and subjecting one to the mortifying necessity of convicting himself. In others, it would be apt to create the idle and pernicious habit of dealing (to use the language of Boyle) in "those dialectical subtleties which are wont much more to declare the wit of him that uses them, than to increase the knowledge or remove the doubts of sober lovers of truth." In others, again,—the lookers on—its effect would be not unfrequently to breed a love of the process, as a sort of literary sport: affording pleasure for the same reason, and of much the same nature, as that which gives zest to pugilistic encounters.

Very different, though not altogether free from abuse, as we know, is the practice of oral discussion under the forms and rules of an organized body, where each speaker has the right and the opportunity to present, explain, enforce, and defend his own views in his own way. Law is there, however, as well as liberty. In a well-ordered debating society, as in a well-ordered political community, the liberty of the whole is secured by the partial restraint of each individual. There error is, indeed, left perfectly free to choose her positions, and to employ her weapons, whatever they may be, unfettered by modes of warfare dictated by her antagonist; but there, too, truth is permitted to appear on the same equal terms, the only vantage-ground which she ever asks or needs.

This union of law and liberty, which can be rightly realized in such an organization only, is, moreover, highly conducive to habits of close and careful thinking—the indispensable element of all worthy attainment in the art of disputing. It presents an arena in which all may have practice with fair hope of success, but in which eminence is never gained but by severe intellectual exertion. One's sense of responsibility is fully awakened for the character of the thoughts which he utters. If they be obscure, superficial, incoherent, or irrelevant; if they be clear, profound, consistent, or pertinent; if they be—aye, whatever they be, his intellectual standing is fixed in the minds of his auditors. Here is something to excite to generous ambition, and that ambition fails not to excite care, caution, and diligence. Here is a company of critics in critical conference. They come not to discuss the merits of parties without, but to canvass freely the claims of one another. Here is an intelligent, at least an inquisitive, public opinion to be met, and he is capable of no exalted station in the world of eloquence who is wholly insensible to its improving influence.

In circumstances like these, a young man of any promise soon comes to discern the value of profound and patient thought, close investigation, rigid analysis, and careful deduction. These come to be indissolubly connected with the idea of a good debater; while mere words, tones, gestures, however fluently uttered, however gracefully managed, fail utterly to secure solid and enduring reputation. If his aspirations be at all worthy, and his genius at all worthy of his aspirations, he will be driven irresistibly into the habit of disdaining the aids of sophistry, of idle rhetoric, and theatrical effect; and, relying upon the force of a manly logic, which is ever the chief source of a manly eloquence, he will be found, upon every occasion, acting out the spirit of that celebrated saying,—*Amicus Plato, amicus Socrates, magis tamen amica Veritas.*

2. Our second leading consideration in favor of debating societies, as disciplinary agents, is that they furnish the fittest opportunities for the practice of deliberative oratory. This might be inferred from the very nature of the case; for what is deliberative oratory but that which is employed in deliberative assemblies? and what is a debating association but a deliberative assembly, at least, in miniature? We take it for granted that no one questions the importance of seeking skill in this kind of oratory. It requires but a very slight survey of the various scenes and objects of its exercise to make this point abundantly clear. Its province is almost unlimited. In Congress, in the State Legislatures, in City Councils, in Town Meetings, in Conventions of the Church, in Synods, in Presbyteries, in organized bodies of every description. civil and religious, literary and scientific, commercial, mechanical, agricultural,—wherever, in a word, questions are to be discussed, and decided according to the will of a majority, there is the appropriate field for deliberative oratory.

How vast, then, how varied, how complicated the interests which it involves, and sways, and determines! Alternately the medium of knowledge, the lever of reason, the magic wand of passion and persuasion, its power over a popular assembly is often past all description. Decrees and dogmas, affecting the interests, temporal and spiritual, of whole classes or communities,—war and peace, spreading gloom or gladness over populous nations,—authoritative decisions, reaching down to the very details of social and domestic life, are often suspended on the tongue of the deliberative orator.

Surely, then, debating societies, if they offer any peculiar facilities for the acquisition of skill in this potent art, are to be set down among the most useful of educational appliances. But are they able to do this? We have not a doubt of it. They do not, indeed, nor can they supply the lack of academical learning and training. They do not offer themselves as substitutes for study and observation. They promise no exemption from toil, no easy access to oratorical eminence. Nor, on the other hand, do they justify the conclusions of those who seem to think a knowledge of Grammar and Rhetoric, coupled with the customary routine of exercises in Composition and Elocution, quite sufficient to secure at once the highest attainable position in the world of oratory. They merely promise to each, according to his previous culture and mental habits, according to his previous character, in a word, a measure of skill derivable, perhaps, from no other kind of practice. They, therefore, by no means despise or disparage the advantages to be secured from books and schools, but verify the observation, often made, that oratory from books and schools exclusively is like many things else from books and schools exclusively; Medicine, for example. It is rather *experiment* than *experience*. Think of a man prescribing medicines which he knows only from description, for the cure of diseases which he knows only in the same way, and you have no bad illustration of the course of an unpracticed debater.

Debating societies are, indeed, to students of deliberative oratory what clinical lectures are to students of Medicine—the sources of actual experience. There is no question proper to be discussed in any deliberative body, whatever its object or its character, that may not, with equal propriety, be discussed, as an exercise, in such an association. There all the motives that commonly prevail in assemblies devoted to the transaction of the real business of life, can be brought to bear with equal effect. There every argument, every suggestion, every felicity of diction, every grace of action, every persuasive of every kind, can be as fully tested as if the society were the Senate of the whole country, or any other great and dignified assemblage. The scene is favorable, in the highest degree, to the development of every order and every diversity of talent. Is logic your sole reliance? Then reason soundly; see that every link in the chain of your argument is strong and sure; for they are present who are eager to find the least flaw, because well they know that from the chain of logic, as from the chain of nature,

> ———— "whatever link you strike,
> Tenth, or ten thousandth, breaks the chain alike."

Is your appeal to hidden motives discernible, as you think, in the character of your audience? See that it is such an appeal as does no dishonor to the speaker himself, nor condemns, by implication, those to whom it is directed; for he that ventures to employ unworthy means, however excellent the ends, is most likely to find, in a company of debaters, as everywhere else, if not more than anywhere else, that "honesty is the best policy." Do you put your trust in wit, and irony, and sarcasm? Be cautious in the use of these dangerous weapons: remembering that often, in such cases, the recoil is far more dreadful than the discharge. Are courtesy and forbearance the means most to your taste? Let them be the offspring of genuine kindness; for counterfeits in speech and manner, like all other counterfeits, are apt to be detected, and if so, bring irreparable defeat upon the counterfeiter. Are you tempted to trust entirely, or mainly, to the efficacy of graceful gestures, expressive tones, pointed emphasis, and other similar aids? Be sure that an orator without some strong foundation of sense and reason, like a Christian without some strong foundation of genuine charity, is ever "as sounding brass and a tinkling cymbal."

Another important advantage in the exercises of a society of this kind is, that there people soon find their proper level. Temerity takes lessons from caution, timidity learns self-reliance, presumption abates under the check of prudence, and many other features of character exercise a friendly formative influence one upon another. This wholesome discipline has often been acknowledged by men of the most illustrious rank. It is, especially, the experience, and, therefore, the testimony of those who, in early life, while yet

> "Chill Penury repressed their noble rage,"

found, in these humble organizations, a fostering mother to that genius which, in after years, was able

> "The applause of listening Senates to command."

It would be easy, therefore, to multiply testimonies on this point. Indeed, it would be hard to find a man who has ever achieved a reputation in the field of eloquence, who is not under obligation, more or less heavy, to the exercises of some debating association. Nor has this obligation been confined to those only who have been denied the advantages of regular scholastic education. The most educated, and the least educated, each in appropriate measure, have experienced the benefit. We cite few instances, because few are really needed.

The celebrated Lord Mansfield, after a full course at Oxford, and even after his entrance upon legal studies, sought improvement in a debating club. Herein were discussed some profound legal questions, questions involving many intricate points of law. He entered into these discussions with all the earnestness of real life. He was careful, copious, and thorough every way, in his preparations; so much so, indeed, that they were found not only adequate to the wants of the occasion, but served, in a high degree, to render him ultimately one of the first jurists of the age.

Curran is another signal example. Every thing seemed to be against his cherished aspirations. Awkward and ungainly in gesture, hasty and inarticulate in utterance, with a voice naturally bad, he early provoked the name of "Stuttering Jack." Since the days of Demosthenes had no man apparently had such obstacles to contend with. After completing his college course, and, like Mansfield, entering upon Professional studies, he still persevered in the endeavor to overcome the difficulties lying in his way to success as a public speaker. He, too, sought aid in debating societies. He patiently withstood the ridicule awakened by his ludicrous, unprepossessing manners. He bore failure with fortitude. He turned all criticism to good account; and, at length, came to be one of the most effective orators of which any age or country can boast.

Fox, distinguished alike for the good and the bad that marked his strange career, gave a powerful, though unconscious, testimony to the value of debating associations, when he confessed, as he did, that he had acquired skill, as a debater, "at the expense of the House of Commons." He had made it a point, during a whole session, to speak on every question, important, or not, merely to improve himself in the art of debating; that is, he had deliberately turned the British House of Commons into a sort of debating society for his own personal convenience. What success he ultimately reached, as a deliberative orator, may be learned from a witness no less competent than the celebrated Edmund Burke, who declared that Fox came, "by slow degrees, to be the most brilliant and accomplished debater the world ever saw."

We take one example more, and that from our own country; not because we have not many to give, but because he is the type and representative of them all. We refer to Henry Clay,—a name that awakens at once the thought of every thing that is fascinating and forceful in deliberative eloquence. Without wealth, without patronage, without academical discipline, without every thing, it would seem, essential to the formation of such a character, he rose, by dint of unyielding perseverance, to be among the princes of eloquence in a land abounding in the most gifted orators. Henry Clay owned frankly and always his obligations to the exercises of a debating society.

3. But our limits, in the present paper, admonish us to pass to the next general consideration which we have named, in favor of associations of this description; namely, the great amount and variety of knowledge which they induce young persons to be at the pains to acquire. Various are the motives engaged in the production of this result. Pride, vanity, envy, ambition, and many other feelings that usually figure most largely in the service of folly, are here sometimes strangely beguiled into the service of wisdom. Many a soul that never awoke under the discipline of school or college, has suddenly shown, under the spur of debate, signs indubitable of the most extraordinary mental capacity. Patrick Henry fomenting disputes among the customers that sometimes met in his store, and, amid these contests, watching with eager interest the play of the passions and the language of emotion, is no solitary example of a mind, naturally indolent, allured into keen and vigorous exercise by the strong stimulus of oral discussion. What matters it, that he had no other motive, or purpose, than the gratification of the passing hour? The effect of the exercise, far from being momentary, reached out into the future, and largely aided in giving him that wonderful command over a popular assembly, which few of all the great speakers, whether ancient or modern, have ever found it possible to acquire.

The knowledge thus gained by Patrick Henry was knowledge of human nature—knowledge of those secret springs of action, whereby the heart is most easily and profoundly moved, and the will most surely and permanently influenced. Others, under the same stimulus, are often urged to extraordinary intellectual exertion in other directions. How many, many hours of patient, persevering toil have been spent in the investigation of a single point in History, in Law, in Medicine, in Theology, in every department of human knowledge, by persons who, without the motives that ordinarily prevail in spirited contests of opinion, could never have been induced, for a moment scarcely, to sacrifice the ease of indolence to the advantages of learning.

But, not to dwell upon the acquisitions necessarily made in the course of elaborate preparations for debate, nor upon the effect of disputation in eliciting latent intellectual power, we have only to consider the information that must be incidentally given and received, in the progress of a discussion, in order to be satisfied of the utility of these associations as the means of imparting knowledge. Even those debates which so frequently spring up respecting the Constitutions and By-Laws of such societies, though often deemed irksome and profitless, are not without a special advantage. Discussions of this kind serve to induce thought respecting the nature of those fundamental laws and powers in a community, under which and in conformity to which all other laws and powers whatever must be made and exercised. They serve, especially, to dispel that vagueness which, in so many minds, always attaches to the idea of a Constitution. They lead to a careful, often to a critical, consideration of those various distinctions and functions indicated, when we speak of constitutional, legislative, judicial, and executive powers. Many a man, profoundly versed in these things, has been able to trace the first step toward their acquisition to some casual controversy in a debating society.

Another sort of incidental information often imparted in the transactions of these societies, is that which grows out of the necessity, so frequently arising, of preparing, in written form, Resolutions, Reports, and other documents, which require ability, derivable only from practice, for their prompt and proper execution. It is a mortifying thing, when asked to reduce your Resolution to writing, or, as Chairman of a Committee, to bring in a written report, or, as Secretary of a meeting, to produce a record of its transactions, to be found tardy, awkward, blundering, or altogether inadequate to that service. To those, in particular, whose early education has been neglected, which is probably the case with the great majority of persons composing debating clubs, or literary societies, this highly practical feature of their character ought to be specially interesting. Not, as we have before said or intimated, that, in the transactions or exercises of these associations, there will be found a full and perfect substitute for academical training; but that, with or without that advantage, they offer such opportunities for the acquisition of skill, in this regard, as can not well be otherwise obtained. This kind of skill is sometimes invaluable. One can not help deploring the figure made in the old Continental Congress, at its first session, in 1774, even by such men as Richard Henry Lee and Patrick Henry, one of whom has been pronounced by high authority the Cicero, and the other the Demosthenes, of America. "On the floor of the house, and during the first days of the session, while general grievances were the topic, they took the undisputed lead in the assembly, and were, confessedly, *primi inter pares.* But, when called down from the hights of declamation, to that severer test of intellectual excellence, *the details of business*, they found themselves in a body of cool-headed, reflecting, and most able men, by whom they were, in their turn, completely thrown into the shade."

" A petition to the king, an address to the people of Great Britain, and a memorial to the people of British America, were agreed to be drawn. Mr. Lee, Mr. Henry, and others, were appointed for the first; Mr. Lee, Mr. Livingston, and Mr. Jay, for the two last. The splendor of their *debut* occasioned Mr. Henry to be designated by his committee to draw the petition to the king, with which they were charged; and Mr. Lee was charged with the address to the people of England. The last was first reported. On reading it, great disappointment was expressed in every countenance, and a dead silence ensued for some minutes. At length, it was laid on the table, for perusal and consideration, till the next day; when first one member and then another arose, and, paying some faint compliment to the composition, observed that there were still certain considerations not expressed, which should properly find a place in it. The address was, therefore, committed for amendment, and one prepared by Mr. Jay, and offered by Governor Livingston, was reported and adopted with scarcely an alteration. Mr. Henry's draft of a petition to the king was equally unsuccessful, and was recommitted for amendment. Mr. John Dickinson (the author of the Farmers' Letters) was added to the committee, and a new draft, prepared by him, was adopted."* Surely the failure of such men, under such circumstances, ought to be instructive. It ought to impress upon every young man that aims at eminence, however fair his talents as a speaker, the necessity of laying a foundation, deep and strong, in those qualifications which secured to Jay and to Dickinson a glory offered in vain to men who excelled them far in oratorical power.

4. Our fourth and last general consideration in favor of debating associations, as a means of educational discipline, is, that they lead to a familiar acquaintance with the practice of parliamentary law. This is a kind of education, so to speak, far more valuable than many would imagine. It fits one for usefulness, where, without such fitting, all other qualifications are often comparatively useless. It is a source of influence, where influence is every thing; a defense of the right, where often the right has no other defense. It is a

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* Wirt's Life of Patrick Henry, sect. iv.

guarantee of order, of decency, of dispatch, of free speech, and of fair decisions.

The importance of this kind of knowledge will further appear, if we duly regard the scene of its exercise. There is not upon earth, perhaps, a more interesting spectacle than a dignified deliberative assembly. As Homer's gods never appear more majestic than

> "When Jove convened the Senate of the skies,"

so men never seem in a sphere more elevated, than when assembled, under the call of duty, for grave and important consultation. They are then in the formal exercise of those high moral and intellectual functions which are the peculiar endowments of the race, and which form distinctly the lines of likeness between man and his Maker. Not, then, like the beasts of the field, are they following the mere instincts and appetites of physical nature; not then, regardless of man's responsibility for man, are they wholly absorbed in schemes of personal advantage; not then, a frantic mob, are they acting in concert only to appall the hearts of men with a sense of danger, but rather a "multitude of counselors, in which there is safety." Their proceedings, ever regarded with especial interest, because they are the representatives of others, acquire at times an overwhelming importance. If the subject before them be great, if the occasion be inspiring, if life, for example, if liberty, be suspended on the decision of the hour, if power, if peril, if clamor from without, combine to stifle the voice of truth and justice, if, in the face of all these, there appear a cool, unquailing spirit of right, a fearless, forceful assertion of principles, there arises at once a scene of moral sublimity, not only awakening elevated emotion, but nerving the arm for heroic achievement, and putting soul in sympathy with soul for every good and every great undertaking.

But to form a deliberative assembly, answering at all to the model here indicated, or to any model likely to find favor with wise and good men, the essential element is order. Law that guides the heavenly bodies in their courses,—law that shapes and directs the endless forms of being upon earth,—law that governs nations, and churches, and families,—law whose "seat is the bosom of God, her voice the harmony of the world," is here, as everywhere else, the indispensable condition of safety and success. Every member may be endowed with the finest talents, furnished with every force and every facility of logic, supplied with ample stores of general knowledge, skilled in all the graces of action and utterance, in short, the very *beau ideal* of the perfect orator, and yet, if the body itself be not under the guidance of some known and recognized rules of order, they are, after all, like a ship at sea without chart, compass, or rudder, a melancholy prey to the vicissitudes of chance. It is not sufficient merely to *have* rules. They must be known and observed; not by the few only, but by all. It will not do in a deliberative assembly, as in the community at large, to leave the knowledge and practice of the laws to a particular class of men only. Here, every man is, and must be, his own lawyer. The law with which he deals, like all other laws, has its advantages and its penalties; and, if he would secure the one, or avoid the other, he must be familiar with its operation. It is not enough to study the theory in Parliamentary Manuals, or to ponder precedents in particular cases. He must *work* himself into the practice. Then, when the exigency arises, he will know how to avail himself of rules and usages, and to parry the thrusts of quibbling opponents. Then, when his personal rights and privileges are invaded, when exposed to the assaults of indecorous opposition, when partiality, caprice, or assumption of power not granted, appears in the person of a presiding officer, when tyrannical majorities overleap the limits of right, when lawlessness, in any way whatever, dares to show itself, he has at command every protection that can be afforded by the laws and usages appropriate to the time, the place, and the circumstances. Who that has had experience in this direction, has not frequently felt the want of such knowledge? How often is the ablest logician, the most eloquent speaker, through ignorance of parliamentary tactics, quite thwarted and disconcerted by some wretched Thersites whose whole ambition is to find fault with his betters, or some scheming tactician whose highest hope is to escape defeat, or secure advantage through dexterous resort to rules and usages! How often have the most important interests, in legislative and other councils, been put in jeopardy, ruinously delayed, or altogether cut off by want of skill in parliamentary proceedings, where every member, perhaps, intended nothing beyond the most open, prompt, and honest performance of duty!

Every consideration, therefore, whether you regard the dignity of the entire assembly, the rights and privileges of individual members, or the vast variety and importance of the interests involved in their doings, points plainly to the utility of a practical acquaintance with those rules of order that commonly prevail in deliberative bodies. Nor is it less a matter of duty than a matter of utility. If this be so, if interest and duty really unite in urging it upon us, where shall we turn for practice in this important line of action, if not to some well-ordered debating association? In such a body may easily be learned, and many times repeated, almost every form of proceeding within the wide range of parliamentary usage Here may be acquired, not only that general expertness in the application of known rules and customs, which is everywhere required for the easy, satisfactory transaction of business, but even that tact and adroitness in the use of expedients which is the fruit of long and various experience. To secure this result, it is only necessary to adopt some recognized code of parliamentary law, to follow rigidly its various provisions, and give them the widest possible range of application. Time will do the rest.

Such, in general, are the advantages promised by well-conducted debating associations. One objection only can be urged against them —their liability to abuse. Against this, where they are purely voluntary, the surest guarantee must be found in the character of those composing them. If they meet as a company of carping, caviling critics, doubting and disputing, because they delight in doubting and disputing, and eager to enjoy the pleasures of conquest, whether truth or error prevail in the contest, the result will be answerable to the design. A spirit vain, conceited, skeptical, and full of sophistry, must be the consequence. If they meet with no higher purpose than that of beguiling a weary hour, or courting the pleasure of controversial excitement, the time, though it might be worse spent elsewhere, is still lost, and worse than lost; for it is occupied in forming pernicious mental habits.

But should a different spirit prevail, should they be so fortunate as to perceive the rare possible advantage of being thus associated, should they be so wise as to pursue that advantage with becoming diligence, how various, how valuable the rewards that must follow! What sharpening and strengthening of the mental powers, what facility in speaking, what various information, what improvement every way, may not reasonably be expected? If there be in them any thing worthy of the light, it must come forth under such inducements. If there be not, will it be no advantage to be made conscious, by contact with other minds, of one's own real position, seeing that so many and so mighty evils continually grow out of a lack of self-knowledge?

Surely such training needs no defense; requires no advocacy. In every situation it has its value. Life is a perpetual debate. Men may "beat their swords into plow-shares and their spears into pruning-hooks," "arms may yield to the gown of peace," yet the war of opinion is a war eternal. That struggle, always active and energetic, was never more fierce than at present. A thousand knotty questions divide and distract the public mind; a thousand dangerous theories delude the understandings of the people. These questions and theories agitate all our deliberative assemblies. They assume the aspect of truth and the armor of reason. They challenge discussion. They demand in those who undertake their investigation, the most able and accomplished debaters.

VIII. PHYSICAL SCIENCE;

CONSIDERED IN CONNECTION WITH THE QUESTION "WHERE ARE WE TO LOOK FOR THE SUPPORT OF ITS HIGHER SCHOOLS?"*

BY PROF. HENRY J. ANDERSON, OF NEW YORK.

In the treatment of the subject before me, I have the choice of considering how Physical Science may be furthered irrespectively of contemporary institutions, or of looking at its place and special prospects in our own present age and community. I have thought that the more practical treatment of this topic would best discharge the task which I have assumed, and I purposely refrain from the more tempting, but less profitable, option of a rambling discourse on the best way of teaching what perhaps might never get a chance of being taught. It is doubtless true that Science, to be properly imparted, should be imparted in reference to ulterior and imperishable interests. But, for this very reason, its administration must take notice of existing facts. It must consult the convictions of the teacher. It must consult still more closely the convictions of the learner. It must act (I add this because so often forgotten) in due subordination to the organic institutions of the land; and, were it only for the sake of something infinitely better, it must accept, to a certain extent, the settled disposition of the people, and the prevailing spirit of the age.

An ambitious philosophy might propose to itself the discovery of some method of disseminating knowledge, unobservant of circumstances and of times; where the teacher goes forth as the conqueror, subduing all capacities and creeds to the submissive reception of the truth, and propagating Nature's Evangel as Mahomet spread his: by the holy vigor of the word and the sword. I am sure I shall be excused from the labor of attempting to find out a way of doing what I cannot believe can be done. Instead, then, of considering impracticable methods of teaching the laws of unanimated nature good for all times and all tempers, I propose to discuss briefly such methods as are conscious of our country's ways, and adapted to our country's wants.

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* Read before the American Association for the Advancement of Education, Thursday, August 30th, 1855.

The leading characteristic of the American mind, the mark at once of our progress, and the monitory signal of many a danger to come, is a love of the largest liberty consistent with the safety of the social life, and a reverence for the firmest authority compatible with the rights of the individual will. I do not stop, now, to praise or blame, nor to inquire whether we have allowed ourselves more or less latitude of self-responsibility than is virtuous or wise. Much may be said, and much that is generous and true, both for and against the free use of democratic power. And I will not denounce, on the one side, a possible tendency to that impatience of restraint from which the world, I believe, was never well free, nor, on the other, an equally possible disposition to prefer, in the interests of peace, the austere order of arbitrary rule. It is enough to feel that God has given us more freedom, perhaps, than he has ever vouchsafed to grant to a community before, and I leave it to you, my friends, to decide whether we do wrong to fear that it is almost more than we are worthy to enjoy.

And yet, be our party-beliefs what they may, no academical establishments inconsistent with our permanent political organizations can last long enough to procure, for uncongenial schemes, a satisfactory investigation. Taking our view, therefore, from the point of American convictions, let us see what ways are left open to us of augmenting the numbers of those who are willing to devote themselves specially to the study of the laws of physical facts. The mere pleasure of knowing, the mere pleasure of *believing* that we know, is attraction enough to prevent these numbers falling off; and, though we do well to enforce this advantage by every legitimate incentive, it would be treason to science to deny the sufficiency of her own unaided charms. These puzzling elements of the beautiful world without us; these undeniable, incomprehensible, mysterious monads; these inevitable atoms, with their inevitable contradictions; this matter-dust, at once impossible and indispensable; these seeds of things, perpetual miracles, massless and formless germs of mass and form, which neither suffer nor rejoice, which hope not, neither do they fear, which have neither consciousness, nor love, nor self-reproach, and yet minister to all the appetites and passions and emotions of the never-dying soul: these things, so hard to understand, that their existence may be questioned without paradox or scandal, have yet relations profoundly interesting, some so simple and transparent, that the infant school finds the child in their possession, and others so superbly involved, that they challenge for ever the long musings and unceasing admiration of the sage.

Can we believe that these relations were left learnable, yet not to be learned? And, if learned, on what conditions, and to what extent? May or may not, a study so self-remunerating, maintain itself without entreaty or compulsion? May or may not, a knowledge so productive, be safely left to the stimulus of a natural demand? Shall governments abstain from what is so often a pernicious intermeddling? And shall the inferior legislatures of the land, the town-council and the family head, disburden their wits and consciences of the whole matter, by turning it over to the parties concerned, letting learning and teaching beneficially alone, until learners and teachers have found each other out? Free trade in letters before the mystery of spelling is achieved, or in science before the boy has been forcibly familiarized with ratios and roots, would not, perhaps, accomplish all the results we desire. But is there not good ground for contending that once beyond the rudiments, all importunate directions are hurtful interferences with the sacred prerogatives of taste? Admitting all the difficulties of this inquiry, it will do no harm, at all events, to ascertain what might be done, when, all our social influences being left to do their work, the study of science is kept free from organized incentives and restraints. And this, we certainly can do without prejudice to the right to go as far as we think proper in seconding the effect of superadded motives, whether religious, political or domestic.

I am thus led to consider what weight or credit is to be given to each of the moral forces which urge the car of science on its upward way. And, in doing this, I must say something of the working of the voluntary principle in facilitating or retarding the successful study of the laws of the material creation. To do this as I ought to do it, I ask, first, to be indulged in an emphatic repetition of an old preliminary truth, manifest when fairly faced, but so easily forgotten that I hardly dare hope that I shall keep it before me, as is my bounden duty, in every line that my pen shall trace this day.

Of itself, and for itself, science is vanity, it is nothing. Good only as a means of doing good, evil only as a means of doing evil, like health, or wealth, or wit, or beauty, or truth, or life, or reputation. It is sometimes said that a cultivated intellect is cheaply purchased at the body's cost. This may or may not be. What, if in this way we dismiss the better servant for the worse? Reason is not the soul's highest faculty, that she can say, unchallenged, to the sense, "Submit, for I am worthier than thou." There is in man that knows, and that in him that does, blind instrumentality and conscious duty, the understanding and the will. the meritless marshaller of meritless means and the indefectible exactor of the righteous end. The knowledge of the things that perish is itself a perishable thing, and that teaching may be the greatest of evils, that but teaches how good may be done.

There is nothing that man can know, or believe, of which it may not be rightfully asked what security does it give us of its profitable use. All human cognitions are open to this criticism, and subject to this accountability. The science of the beautiful and deformed, the philosophy of innocence and guilt, æsthetics, ethics, nay, theology itself, considered but as masses of things to be learned or to be taught, are no more to be trusted in the dark than geology, or embryology, or the chemistry of killing drinks and drugs, or political economy, or, to come at once to the worst, the black art, *Magnum Opus*, itself. Physical science is answerable, most undoubtedly, for all the mischief she may do, but no more than any other science, and not *to* any other science, perhaps, as fretful and as fallible as herself. Answerable, most assuredly she is; but to a Court of higher jurisdiction than any sister power, to a Court where the understanding, elsewhere so arrogant and so aggressive, stands modestly aside, abashed and mute in reverential awe.

What I shall venture, then, to say to you, my friends, shall be said in full view of this stern accountability, and if I do not seem formally to recognize this truth at every turn, it is because I feel assured of your candor and your kindness, and believe that you will even think the better of the speaker for having taken it for granted that, in this respect especially, you will do him far truer justice than he can do himself.

Subject, therefore, to this supremacy, science may do one of two things: it may work without soliciting assistance, or it may look for support to the Church, to the State, to the School, to the Workshop, to the Press, to the Family, and to the Individual man, considered as unassociated and at large. Leaving for the present the theory of self-support, let us see what each of these protectors is disposed to do for her in a country like our own.

And first the Church, meaning by this term the aggregate of the legally subsisting associations of the land, without reference to the merits of their conflicting claims to the exclusive guardianship and sense of Holy Writ.

Do the religious organizations of the United States feel it a duty to encourage the study of physical science to the extent to which it would be carried by the general desire? I do not ask if it be their duty, I do not even ask if they ought to feel it as a duty: I simply ask what may be called the condition of the fact. And, if no such conviction is entertained, has science any right to ask support from organizations founded for the furtherance of interests which they believe, and do well to believe, are of an order far above the possession of all the mysteries of the visible creation? Has the

Church, or any part of it, ever pledged itself to such a task? There is a difficulty, here, I am aware, hard to overcome. One of the great characteristics which make us what we are, is the absence of any generally accepted voice, speaking authoritatively for the Church; in the absence, it may be said, of the Church itself, in any commanding and controlling visibility. If we cannot agree whether there be a Church, or, if there is, where she is, how can we learn the mind of this somewhere existing mother, whom we are unable unitedly to recognize. If we seek to avoid this difficulty by applying for separate information to any of the leading associations which present credentials of authority, we are met by uncertain and contradictory replies. As a general result, it may be said that our religious confraternities, while they look with favorable eyes upon the progress of such sciences as are taught in true subordination to their end, regard their growth and their dissemination, however free they may be from the taint of a false ambition, as productive only of a secondary good. Nor has science a right to complain of this. Nothing would be more unjust than to attempt to force an order professedly religious, down from the height of her convictions to the lower level of a work not hers, while she feels neither a call for such a work, nor even a call to pray for such a call. Nevertheless, it must be admitted, to the honor of the religious bodies which the great principle of impartial toleration has made visible in our midst, that methodized elementary scientific education is mainly attainable, even now, through the medium of colleges more or less directed towards spiritual aims, and designed for spiritual ends. In this respect, as ever, Christianity, whether banded as a universal brotherhood, or acting in independent energies for a great common cause, has shown herself the true friend of science, in laying the only safe foundation for her house, in blessing it in the building and guarding it when built, in infusing into her votaries a spirit of moderation and good-will, and in dissuading them, when made heady by the fervor of invention, from the excesses of a misdirected and destructive zeal.

While this is true on the one side, it is not too much to say, on the other, that while our Church Academies have done much, they have left that undone which they were not, perhaps, to do themselves. They have not made provision, nor have engaged to make provision for the gratification of *all* intellectual appetites and wants, however innocent and commendable in themselves. To ask this surplus at their hands, would be to ask, *debitum de non debente*, an assistance which ought to be refused. Let us turn, then, for a moment, to the State. Let us interrogate her interest in science, and her duty to make that interest good.

With us, the State as teacher, is but the scholar's choice. Her wisdom, in that capacity, will never exceed the average wisdom of her sons, except so far as this, that if votes must settle what ought to be taught, the collective judgment is as safe, at least, as any private voice, and whether it is or not, it is the safest we can now procure, not only in the sense of being pronounced the safest by popular decree, but in a sense more absolute than that, as long as authority more competent to judge remains incompetent to win the general assent.

But is it true that it is the business of *votes* to tell Americans what to learn, and to teach Americans what to teach? In elementary education, this principle of elective statutory will has vitality and force, and, therefore, though certainly not exempt from the sacred right of contestation, is deserving not only of all honor and respect, but of the most loyal treatment in its present process of experiment. To the good working of our institutions, a knowledge of their springs and balances is an indispensable condition; and education, aiming at this end, and carried to this end, may certainly be included in the list of legislative obligations. Yet, there are honest risks which this honest duty necessarily presupposes and involves. There is the hazard of a political establishment fraught, in evil times, with all the dangers of united Church and State. There is a mischievous addition to the patronage of party, if ever party should feel bound to do with the school what it has done with every thing else, put the right men in the right places, with a religious belief that its own men are the right men, and all other men the wrong.

Yet, after all, there is nothing more in this than we encounter and survive in every branch of our elective public service; and, confined religiously to uncontroverted subjects, elementary education may go on, whichever party claims the temporalities as its due. But what shall we say of looking mainly to the ballot box for our supply of astronomers, chemists, or engineers? A guarded system of double elections would rather mask than mitigate the evil. The danger of party proscription and corruption is greatly increased, when abuses are concealed by a complicated process of appointment, or by the mystery of high qualifications. And, then, the interest of the State in science is so subtle, so debateable a thing! And mother State has already so much to do, so many and so constantly increasing cares! She has to secure each man's honest own, from each man's very honest belief that he has not all his own. She has to protect her touchy children from mutual innocent misunderstandings about the things that are, things that nobody sees exactly *as they are*, and which nobody believes but that he does. She has to run after Private Judgment in his frolicksome excursions, and when she catches him out of bounds, to restore him sane and sober to the circle of his friends. She has to cool the ardor of independent individuals somewhat excited by the idea that they are senate, court and army all in one. She has to shut up for safe keeping heretical philosophers, whose odd creeds have pushed them into acts which make it painfully necessary that they should not go at large. She has to see that the lifetaker's misapplied convictions are justly retorted upon himself. She has to replace, with more than Russian perseverance, breastworks that have been levelled by the undermine of stratagem, or the battery of force. She has, in these latter days, new and superogatory cares; not yet, it is true, to tell us what to worship or believe, but what is right to buy and sell, and what is not; what is safe for self-ruling freeman to pass from hand to hand, and what property has so mischievous an existence that is must be wrested from the owner, though charters perish in the strife. All these, within the limits of the constitution's prior law, are the State's legitimate concerns. Shall we add to them the care of our brains beyond the rudiments which are enough for the legislator's wants. Science is proverbially jealous and proud. Pity it is, she is; but so she is, and so she ever will be. The State cannot take her by the hand so condescendingly, but she will be tempted to return a scornful glance. If the State protect her, it must not be in Mahometan seclusion; for she has her own wild notions of fidelity, and will never promise an allegiance which neither wealth nor power is entitled to exact. Not that it need be doubted that, in her way, she will render most worthy service to the State, but better far as a voluntary benefactor than as a pensioned functionary, or a salaried dependent.

If science undertakes to do without Church or State, what interest has the School, (and by that I mean unestablished academies, founded solely as natural supplies for natural demands,) what interest has the School, in this sense, to grow in the direction of physical instruction. Left to themselves, and truly freed from all corrupt connection with the State, the interests of the schools will, sooner or later, be represented by the interests of the community at large. If the people are already trained to a consciousness of their interest in science, if, in other words, they know enough to take knowledge at its worth, if they neither slight it as a pedantic inutility, nor superstitiously overrate it, as if it were a talisman fit to cure the consequence and to bar the very birth of crime, then we should have, at least, no more learning than we needed and no less. Are we so far forward, dearest friends? Who of us can answer? No man knows where he is himself in the order of capacity. What nation, then, can say, without vanity: "Behold *me*, owing nothing to heaven or to earth; poised on my centre, I can balance and govern myself?" Avoiding this dangerous self-praise, perhaps we may say, in a sense that is not meant as severe, that we are as able to abide by the voluntary principle in the matter of intellectual supplies, as we are in the selection of platforms, or creeds, or costumes, or trades, or even as we are in those tenderer relations, where the State will one day try and help us, if we let her, in the choice: I mean of the spiritual or the conjugal depositaries of our cares. In all these interdealings, we find no durable demand left long unrepresented by an adequate supply. If every Pro and every Anti, polemic or political, is sure to find its temple or its den; if every whim of habiliment or food is fairly pampered by providers and purveyors without a help or a hint from senate or house; if every myth that can craze a dozen converts, finds an organ disdainful of State-printing and all ablaze in the interests of souls; if, without tax or bounty, the most tyrannical of house-lords finds, at last, a loyal subject only too happy to respond to his decrees; if the hatefullest of services, fairly sought and fairly paid for, is sure to be cheerfully performed, how can we doubt that where the love of being taught is a vigorous reality attested by something more than a vague cry for gratuitous nutrition, the teacher (and I mean not an eye-laborer, who thinks only of his pay, but the sympathizing guide who feels more than remunerated by his pupil's success) will be at hand to administer with devotion and delight, to a passion which, more than any other, it is an honor and a happiness to feed.

The liberty of teaching is, or ought to be, essentially an American idea. It may be that in the providence of God, self-governments are left to man, as ever-reviving but ephemeral experiments, not to be repented of, not to be abandoned, yet not to be mistaken for the permanent condition of the race. If, however, self-government is right, then is the freedom of the mind and the furniture of knowledge best secured by a *minimum* of intermeddling from ballot-box authority, in matters of instruction as in matters of belief. In other times, and even now, in other places, governments exist which are not as we should wish them for ourselves, but there they are or were, for unguessed reasons, which may be good though we know them not, and, therefore, most deserving of our reverent respect. Under a monarch, or a patriarch, the education of the *people* could no more be left to the *people*, than the duties of a nursery could be entrusted to its little inmates, or the conduct of a hospital be delegated to the sick. High over all the realms of this earth sits an Infinite Royalty enthroned, and the self-ruling nation is most emphatically subject to His will. If He has committed us to the hazards of self-direction, He has bound us by the same great charter to the risks of discussion untrammeled by the State. What seems truth may be, sometimes, (who can deny it?) but unconscious error in disguise; sometimes even, (who would believe it?) stark folly and delusion. But still let her be subject, in her lamentable wanderings as in her wonted ways serene, to no such harsh dominion as is found in an unsympathizing legislative rule, to no such commissionless director as may be lurking in the dim spiritualities around us, faithful as these are in the main to the cause of their glorious chief. If ever her future mistress is to come, let us wait till she has added to the titles of her call the note which subdues without compulsion, and persuades without a bribe, till time, and a genial and a general acclaim shall have pronounced who it is who can win our understandings through our wills, who it is who can subjugate our heads through our hearts, and bind us, with our consent a reunited people, by that mystic triple cord, triple and yet one, one faith, one hope, one love.

The Workshop has a special interest in science, and, by this interest, has already achieved results which ought, at times, to put the pride of the academy to the blush. Perhaps I may be pardoned if I say that it is here that science herself is apt to be unjust. No one who has not sat, with the right faith and knowledge, by the side of the patient artisan; who has not watched the progress of his thought from the moment of its birth in the narrow cell of its necessity, through all its struggles and rebukes, its hopes and its defeats, its strange diseases and its sudden cures, its disappearance and oblivion for a time, and its unexpected re-emergence preparatory to a triumph long deferred,—can ever know how much science is indebted to the most unsightly and least assuming of her sons. I know it has been said that the artisan has had little reason to complain; that he is querulous and scornful; and that he rejects, when most he needs it, the proffered clue which would lead him into light. But even if this were sometimes so, which of the two is bound, in this unfortunate mischance, to be generous and forbearing to the other? Is it he who is but the holder of the facts already classed, or he who gratuitously adds to the number on the list?

The assorter of old inventions may, no doubt, himself invent; but, by doing so, he is raised to his humble brother who has done the same, and with less. It is not a condescension as he might be tempted to believe. What the Workshop is for science, and what science is for the Workshop may be seen by studying labor in her loftier pretensions. The astronomer's observatory, the laboratory of the chemist, the geologist's cabinet in doors, or his largest studio without, are workshops all in the true sense of the word, and they are not doing half their duty if they aim at nothing more than the registration of admitted facts, nothing more than their verification or re-emission, though these are not to go undone.

The laboratory, using now the term at large, is or ought to be the inventing student's veritable home. I mean where the deliberate quest of knowledge is a vocation as well as an allowable pursuit. Nature is never communicative to those who seek her secrets at second hand. She must be wooed in very person, wooed with humility, with patience, with assiduity, with love.

How far the laboratory may be made the place for best learning the higher laws of physical dependence, is a question which may be variously answered. Inquirers may differ very much in the comparative importance they attach to the two great divisions of scientific labor: the task of learning what is now known to the learned, and the work of learning what is not yet known at all; or they may differ upon the extent to which the scheme of education is meant to be pushed.

We are to learn the unknown through the known, but not through all the known, or science would now be at its limit. How much of admitted and authenticated truth is indispensable to a successful foray into the regions of ignorance and doubt, has been a master question ever since the first schoolmaster went abroad. This ratio varies with the time, and still more with the capacity. As facts accumulate the portion necessary for getting more must increase in absolute amount, but its ratio to the whole must constantly diminish, until that term is reached in which the proofs of originality are threatened with a loss in the very labor of comparing the so called new with the interminable old. And still greater is the uncertainty of this proportion when we compare, not time with time, but intellect with intellect. Genius is a power as undeniably real as memory or taste. It needs not much of the capital of the old discovered, nor even the schedule of that capital; for it flows into the ocean of congenial truth, not laboriously as of an effort, but unconsciously and gladly as rivers seek the sea.

These uncertainties may embarrass us, but they are not without their use. If they did nothing else than teach us the vanity of devising utopian combinations warranted good for all climates, and magnificently irrespective of age, person or condition, they would have amply justified their own existence. But they do not long perplex us, for common sense, that trenchant ruler of divided wits, will force us, in every field of duty, to the adoption of the best machinery at hand, without waiting for that absolutely best one, which always figures finely in the future, but stops unfortunately when fairly overhauled.

That the laboratory has not been duly annexed in organized completeness to our teaching institutions, is a fact admitting of no doubt, but that it can be made subservient to very juvenile ambitions is more than it would be wise to assert. Of some divisions of natural science, it may be even said that studied from books alone, or even from merely gazed-at phenomena, brilliant though they be, nothing is acquired, but a most distressing and disedifying sciolism, which cannot possibly be taught its own mistakes, and which may do more harm in an instant than the wisest mender can repair in a year.

The two highest stimulants to learned toil are faith in the humanity of labor, and relish in its sweetness : the belief that the work will bring good to man and glory to his master, and both the belief and the sense of a recompense, divine in the very ardor of the act. Souls, impelled by these emotions, will work onward against poverty and neglect, against scorn and persecution. If they fail, as it is styled, their failure is but cause to an effect which ever proves, in the end, of more value than the selfish man's most dazzling success. If they win, the field of an honorable and eternal propagand is open to them and their supporters, and we have, in every such success, the centre of a school sustained by motives far more ennobling and enduring than the coffers of the State.

They only who have witnessed the restless activity of pupils well officered by men equal to the task of exploring the new prospects of science, and extending the real area of truth, can form an adequate conception of the difference between merely adhering to the old and gloriously conquering the new, between the spirit of revision and rehearsal, and the spirit of inquiry and research. It may seem like ingratitude to well meant legislation, to assert that her bounty may have prevented the full exercise of investigating skill, by making practically mere competence to reteach what has been taught, the main requirement for her chairs. Not that genius has not here, as everywhere else, found the means of going beyond the intended line, and brave new truths there are, and bright ones that have been hatched in state-built nests. But legislation is not directed to these ends, and I am far from saying that it should be. What I mean is simply this, that if science had been left fearlessly and frankly to herself, unincumbered by the sacrifices she has made to gain the favor of the State, and untrammeled by the pledges she has voluntarily given, and from which, therefore, she must not ask to be released, she would have had, by this time, a fresher and a freer organization, equipped with prophets and with priests not deriving their commission from the accidental preponderance of a mass of ballots cast for very different ends, but holding by the higher patents which genius and devotion have never failed to bestow upon their sons.

Science and the Press! Has this relation been studied as it merits?

Can matter's multitudinous laws be taught best now, as they were best taught five centuries ago, when universities were nations of young emigrants, clustering round great centres of spiritual life, because it was cheaper to live years away from home than to pay a heavier tax in the purchase of such luxuries as books were then. The effect of the modern press is to make scholastic learning and elementary science easily accessible at home, or, at all events, to substitute, for a few grand academies, containing numbers now incredible to the unreflecting, an equally incredible number of little schools, each good for its little neighborhood, but powerless to attract pupils from abroad. The lovers of high figures and impossible concentrations must lament, in this respect, the influence of cheap printing; but, on the whole, things are well as they are, and, in this as in everything else, one might suggest, for the comfort of the desponding, many consoling and substantial compensations.

In one respect, certainly, that very modern feature of the Press, the daily news-sheet, with its wonderful circulation, has an influence eminently favorable to scientific pursuits. The worthiest incentives to the close study of nature are more or less connected with publicity. The love of the very thought of human happiness, the natural, but sometimes overfond desire of social amelioration and reform, the attainment of honorable distinction as a discoverer of the useful or the true, are all motives greatly fostered by the instinctive promptness of the news-press, and its laudable ambition to compete for the prize of fresh and accurate intelligence. When we reflect that science enjoys now an advantage in this respect, which was denied to her in the ages we call dark, we feel that we may expect of her to dispense with that protection, without which, we must not forget, she won her best spurs in the days so despised of monks and manuscripts, serfs and saddlebag mails.

Science would not perish, though neither Church, nor State, nor School, nor Shop, nor Press looked after her. The *family* has an interest in her existence, an interest in her freedom, an interest in her growth. The father may be safely consulted in the choice of his children's helps. He himself has, perhaps, felt, in the pinch of many a reminder, that he has not been, at least, over taught; and he will not be neglectful in seeing that his little ones shall come, in due time, to the knowledge of all necessary truth. Left to this support, science will not, it is true, get access to all minds that she stands ready to instruct. There are the poor, who would know, but cannot pay; there are the overtasked, who would listen, but, alas, they cannot keep awake; there are the strange-tongued, who are yet to learn, with years of toil, the very language through which it is well that the future citizen's information should be gained.

But society, even when viewed as a loose aggregate of families, before she is knit into a state, would not leave her children to perish for want of food whether of the body or the mind. The other interests would be produced by family's proximity to family, and man's eternal interest in man. And so, last of all, we shall be taught that the solitary unassociated individual has an interest in science to which she may appeal if all the others had failed to hold her up. Yes, if to-morrow these results of an advanced civilization were to withdraw their presence and their aid, the next day's sun would not go down without proofs the most cheering that, even in savage man, mind kindles mind, and heart responds to heart. The desire to know is an inextinguishable passion. Unregulated, as dangerous as the very worst; subject to control, it is the very nerve of modern life. The desire to teach, though less obtrusive is just as craving as the other. Most imperious, perhaps, where least expected. Mighty parent of a mingled brood! For of her are born patient persuasion and fiery zeal, gentle entreaty and excommunicating hate, all the sweetness of the sainted martyr, all the savage vehemence of fanatical despite. We praise our brother when he has embraced our thought, we blame him when he differs or demurs. What is this but the pleased vanity of the successful teacher, or the mortified self-love of the repulsed. We do not teach until another learns. His accord is our acquittal and our crown, his dissent our condemnation and our cross.

As long as human nature is so susceptible of sympathy and so thirsty of harmonious response, so weak or so officious, if these are proper words, or so compassionate, so convincing, so soul-saving, if you will; so long we need not fear that science will tire of her mission or despair of her generous design. She will ally herself with every power that is willing to put her to good use, and does not tremble for the consequences of her somewhat blind devotion to what she holds to be the truth. With the Church, should that mighty mother ever be objectively revealed, she will walk in happy concord and reciprocated love; under the State she will take her honored place in loyal subordination to the powers that be; in the school, she will defer to the just claims of the sister sciences which deal in human affections and the code of conscious and answerable life; to the workshop she will stand in the relation of a counsellor and friend, not as giving without receiving, but as grateful for the contributions of the craftsman, conscious of his honorable toil, and a thankful heritor of his untutored intuitions. With the press she will maintain as she has ever done, a cordial communion, a co-operation without hypocrisy or disguise, a friendship full of sympathy and mutual respect, lengthening her coadjutor's still extending arm, quickening his ear, purging his eye, and if necessary, as it may be here and there, praying jointly with her brother that a grace may be given that will always maintain them continent in temper and orthodox in taste.

With the family an attachment without form, and a cheerful unburthensome acquaintance, not intruding, not yet unwilling to come in, serving meekly by the day, as it were, not reluctant to assist, nor yet cast down by a permission to withdraw. With the individual a truly catholic affection ministering to his harmless little vanities and his crying wants, irrespective of his creed, his birthplace, or his blood, not happy in a discovery that but benefits a point and stops at a line, but rejoicing in every advance that fits man to serve humanity and its Master.

Science properly so called is in harmony with all existing institutions. And so she lives majestic and august, not seeking with ignorant cunning and self-complacent zeal to break down the immemorial and the stern, but looking cheerfully at their inevitable change, moving with all things as they move, looking for the immutable not in the pliant attitudes of things of place, and time, but in the eternal laws of their divine creation, fit emblems of their Maker's own adorable perfections. So shall science at last survey her own domain nor seek to criticise what lies beyond in the empyrean of faith. Wise in the vast sphere of the knowable and the known, she will bow to a believable and a believed, nor look with envious or scornful eyes if ever she should find that there are souls that may be fired without a touch from her torch, and may trace their brightness and their blessedness to inspirations unfathomable by her own.

The foregoing considerations, it must be confessed, do not directly solve the question;—how are the sciences best taught to American youth? But they pave the way to a solution. The very fact that they prove that there exists with us no power or authority so specifically interested in the matter as to justify the surrender of high physical instructions to its peculiar care, leads at once to two practical conclusions. *First*, that the complaints so frequently heard that this or that society or community, this or that incorporation or individual has failed to produce results which in Europe are the consequence of causes not existing here, are only to be justified on the ground that they emanate from subjective premises, logically warranting the conclusion, but void themselves of a logical support. *Secondly*, that for the present, and for as long as the American principle of *a minimum of legislation, and that minimum directly from the people* finds favor in the land, so long science like other interests of greater or less value, must look mainly for its support to the *social* influences arrayed in its behalf. This conclusion is adverse to any immediate prospect of realizing grand political centralizations, and therefore discouraging to the culture of such minds as only thrive when fed by such excitants. But this loss, if it be called one, is more than counterbalanced by the advantages of liberty of education, earnestness of competition, and the rescue of literature and learning from the contaminating touch of party corruption and intrigue. The time may come, no doubt, when the friends of letters and science shall do more than what is now advisable, when instead of simply spurring to quicker action existing organizations, a ground more special and independent may successfully be sought. We may place both the things to be imparted and the methods of imparting them, nakedly and frankly on their merits before a people prepared to do them justice, and therefore, willing and able to sustain what they approve. And this may be done without resorting to the un-American process of legislating to those who prefer it an expensive education, and to those who do not their full proportion of its cost.

It is in this connection that the question best comes up, what ought to be, with us, the limits of the liberty of scientific teaching and research. If America has adopted for her maxim the largest liberty in all things, subject strictly to the order which is its price, and the happiness which is its end or its aim, we have yet to ask who have we now in our community admittedly authorized to tell us when the tenure of freedom is violated and when it is faithfully fulfilled. Even if we agreed in the reply the very principle itself from which we start, makes the agreement only good for the joint good pleasure of the bound, unless indeed what can hardly be expected, the duration of such an authority should be fixed for a definite time by a constitutional provision susceptible only of a constitutional repeal. It follows then that any truly representative and legislative action that should dictate to science the subjects it should handle or the methods it should use, would be in open derogation of the safest portion of its creed, and any other legislation would find itself unequal to the task of subduing the irritation which so dangerous an intermeddling would undoubtedly create. So far, accordingly, our State has with very great forbearance strictly enjoined upon the schools of her own creation, that they abstain as far as possible from teaching anything whatever about which opinions are decidedly divided. But these axiomatic truths are neither very many nor very difficult to get, and hardly justify an expense which before another lustre will be a matter worthy of attention. Granting, however, which I do, that a budget, large enough some may say for the aggregate expenses of a well governed state, must be annually voted to teach the names of the implements of knowledge, and the necessary facts undeniable which the youth of the public should possess, what are we hereafter to do when debatable opinions shall be voted to be equally essential to the welfare of the state? Is it possible, as American convictions now stand, to invest the temporary holders of legislative power with a prerogative so vast as the control of education in matters where there exists, and in God's holy providence ought to exist, a wide diversity of honest belief? Is it possible to devolve this most delicate and difficult of all social tasks upon a permanent irresponsible organization? And if so, suppose some pleasant day, a pliant senate were goodhumoredly to agree to try what could be done, where is the body bold enough now to assume so responsible a charge. The time may come when for evil or for good, such an authority may exist and may exercise its powers with a hearty popular assent, but to-day we are very far from such an order of things, and *to-day*, *to-day* we are to act. In the meantime convictions and contradictions have their consecrated rights. There is no ism in physics, politics, ethics, or polemics that does not insist upon the freedom of its school. The more powerful organizations will protect the more weak on easy conditions of conformity, and these natural affiliations are not to be condemned. The religious orders of our land, without the wish of an exception, have a life and a legal existence due to wants which merit our profoundest respect. It is our proudest profession that we tolerate all, and as none shall be legislated dead or even legislated down, so none shall be prevented from expiring, as soon as it is conscious of a call to disappear. The religious orders have an interest in science, a subordinate interest it is true, but real as far as it goes, for they never would consent for mere show to make it a part of their work. To complain that they teach it at all, or that they do not teach it more, is merely to complain that they exercise the right which every teacher in our midst, body sole or body corporate, has long held by the law of the land.

A word or two may be said of the few schools of practical science among us, whose success is due either to the high reputation of their heads or to means of support derived from large private benefaction. A school truly self-supporting is a thing to be proud of when it comes, but not always to be aimed at when it does not. It is certainly a great thing to say that nothing has been taught that has not been thankfully paid for—for this reflects equal credit upon cathedra and bench. But the things most needful to the learner and the methods best adapted to his wants, are often not the things nor the methods of his choice, nor even of those who hold the strings of the family purse. Here endowments are required, for there are parents, nor do I blame them, that appreciate the merits of a study when their neighbors, nor always the richest, pay three-fourths of the expense, but they cannot be convinced with the ware at full price. Among those may be many who have not the means, and the same principle which justifies the more poor in accepting the bounty of the less in matters which relate to the essentials of a right governed life, will apply with almost as much force to provisions for the satisfaction of the less imperative desires.

Yet the rule holds good in the main, that halls of education intended not for the elements of science, but either for the culture of the powers of invention or for the exercise of handiwork soon needed in the forge, the factory, or the field, the self-supported school will have proved itself the best in the end. Every such enterprise, living openly and well without the aid of the compassionate, has the notes of a legitimate success. And every other however laudable in its aims, however noble in its struggles and its sacrifices, only lives to cause the wise to regret that so much wisdom should be wasted in vain. Not that all is quite lost even then. For every good aspiration an ultimate reward is reserved, and even in this foggy world we are often enabled to see what a wonderful hit can be made by a generous miss.

To resume and conclude. As science has no right to complain that institutions not owing her allegiance, should lay her vast treasures under thankless contribution, and even send her adrift with a petulant reproach, so these institutions may afford in their turn to be forgiving, if young knowledge in his innocent peerings into nature, should run out in his delight and proclaim, like a terrible child, some unseasonable truth which his wiser elder sister would have prudently reserved. Or if he must suffer for this, at least let his innocence atone for his rashness when under the same eager desire to do good, he announces now and then to the world some beautiful fact which turns out, alas, to be no fact at all. Subjective science is convinced by its very nature of a false infallibility without being conscious of its falseness, and is thus exposed to unfortunate mistakes. But science truly and objectively herself, is not to be discredited for that which herself does not commit, or for that which even in her counterfeit resemblance is often nothing more than an inevitable error of the understanding or a curable delusion of the will. To condemn the first as presuming or immoral, is simply absurd; to treat the other as we sometimes hear it treated as a deliberate attack upon the very citadel of faith is a procedure neither Christian nor wise, and betrays the very fault which it imputes. The devotees of science absorbed in their pursuits, are often very innocently unsuspicious of the slightest tendency in themselves to an irreligious turn of mind, and may be made by the mischievous or the stern to pay a very heavy penalty for their childlike unacquaintedness with what was never taught them in their youth. For I verily believe that there are many of them who live lives of singular simplicity, and know so little of the mystery of sin that they have never so much as thought of the mystery of its forgiveness. Such ingenuous enthusiasts as these are painfully unprepared for the awful brand of heresy, for unless braced for the encounter by that faith which nullifies the charge, the sudden thunder of a little rural Vatican is often quite enough for their nerves. I am sure if our lay defenders of the faith, always amiable-minded as they are, but not always authorized to excommunicate, were to know the nameless agonies which the thoughtless young inquirer undergoes when he finds himself fairly on their forks, they would be easier with the juvenile offenders, and keep the faggot and the fire for the stubborn and the stiff. On the other hand, it is but fair to ask whether science does not sometimes go as far as is wise when she ventures to expound without a license, the mystery of a Book and the sense of a Tradition intended not for the display of her explanatory skill, not as themes for her to teach from, nor as words for her to reconcile, but as vehicles of lessons for her to learn and graces for her to pray for, with that humility which unfortunately the unhumbled understanding never misses in itself, which most abounds where least it finds itself, which best adorns the brightest intellects, and which quite unconscious of its own existence, wins from the jealous heavens her chiefest blessings and her choicest gifts.

XIV. SUBJECTS AND METHODS OF INSTRUCTION IN MATHEMATICS;

AS PRESCRIBED FOR ADMISSION TO THE POLYTECHNIC SCHOOL OF PARIS.

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"L'École Polytechnique" is too well known, by name at least, to need eulogy in this journal. Its course of instruction has long been famed for its completeness, precision, and adaptation to its intended objects. But this course had gradually lost somewhat of its symmetrical proportions by the introduction of some new subjects and the excessive development of others. The same defects had crept into the programme of the subjects of examination for admission to the school. Influenced by these considerations, the Legislative Assembly of France, by the law of June 5th, 1850, appointed a "*Commission*" to revise the programmes of admission and of internal instruction. The President of the Commission was Thenard, its "Reporter" was Le Verrier, and the other nine members were worthy to be their colleagues. They were charged to avoid the error of giving to young students, subjects and methods of instruction "too elevated, too abstract, and above their comprehension;" to see that the course prescribed should be "adapted, not merely to a few select spirits, but to average intelligences;" and to correct "the excessive development of the preparatory studies, which had gone far beyond the end desired."

The Commission, by M. Le Verrier, prepared an elaborate report of 440 quarto pages, only two hundred copies of which were printed, and these merely for the use of the authorities. A copy belonging to a deceased member of the Commission (the lamented Professor *Theodore Olivier*), having come into the hands of the present writer, he has thought that some valuable hints for our use in this country might be drawn from it, presenting as it does a precise and thorough course of mathematical instruction, adapted to any latitude, and arranged in the most perfect order by such competent authorities. He has accordingly here presented, in a condensed form, the opinions of the Commission on *the proper subjects for examination in mathematics, preparatory to admission to the Polytechnic School, and the best methods of teaching them.*

The subjects which will be discussed are Arithmetic; Geometry; Algebra; Trigonometry; Analytical Geometry; Descriptive Geometry.

I. ARITHMETIC.

A knowledge of Arithmetic is indispensable to every one. The merchant, the workman, the engineer, all need to know how to calculate with rapidity and precision. The useful character of arithmetic indicates that its methods should admit of great simplicity, and that its teaching should be most carefully freed from all needless complication. When we enter into the spirit of the methods of arithmetic, we perceive that they all flow clearly and simply from the very principles of numeration, from some precise definitions, and from certain ideas of relations between numbers, which all minds easily perceive, and which they even possessed in advance, before their teacher made them recognize them and taught them to class them in a methodical and fruitful order. We therefore believe that there is no one who is not capable of receiving, of understanding, and of enjoying well-arranged and well-digested arithmetical instruction.

But the great majority of those who have received a liberal education do not possess this useful knowledge. Their minds, they say, are not suited to the study of mathematics. They have found it impossible to bend themselves to the study of those abstract sciences whose barrenness and dryness form so striking a contrast to the attractions of history, and the beauties of style and of thought in the great poets; and so on.

Now, without admitting entirely the justice of this language, we do not hesitate to acknowledge, that the teaching of elementary mathematics has lost its former simplicity, and assumed a complicated and pretentious form, which possesses no advantages and is full of inconveniences. The reproach which is cast upon the sciences in themselves, we out-and-out repulse, and apply it only to the vicious manner in which they are now taught.

Arithmetic especially is only an instrument, a tool, the theory of which we certainly ought to know, but the practice of which it is above all important most thoroughly to possess. The methods of analysis and of mechanics, invariably lead to solutions whose applications require reduction into numbers by arithmetical calculations. We may add that the numerical determination of the final result is almost always indispensable to the clear and complete comprehension of a method ever so little complicated. Such an application, either by the more complete condensation of the ideas which it requires, or by its fixing the mind on the subject more precisely and clearly, develops a crowd of remarks which otherwise would not have been made, and it thus contributes to facilitate the comprehension of theories in such an efficacious manner that the time given to the numerical work is more than regained by its being no longer necessary to return incessantly to new explanations of the same method.

The teaching of arithmetic will therefore have for its essential object, to make the pupils acquire the habit of calculation, so that they may be able to make an easy and continual use of it in the course of their studies. The theory of the operations must be given to them with clearness and precision; not only that they may understand the mechanism of those operations, but because, in almost all questions, the application of the methods calls for great attention and continual discussion, if we would arrive at a result in which we can confide. But at the same time every useless theory must be carefully removed, so as not to distract the attention of the pupil, but to devote it entirely to the essential objects of this instruction.

It may be objected that these theories are excellent exercises to form the mind of the pupils. We answer that such an opinion may be doubted for more than one reason, and that, in any case, exercises on useful subjects not being wanting in the immense field embraced by mathematics, it is quite superfluous to create, for the mere pleasure of it, difficulties which will never have any useful application.

Another remark we think important. It is of no use to arrive at a numerical result, if we cannot answer for its correctness. The teaching of calculation should include, as an essential condition, that the pupils should be shown how every result, deduced from a series of arithmetical operations, may always be controlled in such a way that we may have all desirable certainty of its correctness; so that, though a pupil may and must often make mistakes, he may be able to discover them himself, to correct them himself, and never to present, at last, any other than an exact result.

The *Programme* given below is made very minute to avoid the evils which resulted from the brevity of the old one. In it, the limits of the matter required not being clearly defined, each teacher preferred to extend them excessively, rather than to expose his pupils to the risk of being unable to answer certain questions. The examiners were then naturally led to put the questions thus offered to them, so to say; and thus the preparatory studies grew into excessive and extravagant development. These abuses could be remedied only by the publication of programmes so detailed, that the limits within which the branches required for admission must be restricted should be so apparent to the eyes of all, as to render it impossible for the examiners to go out of them, and thus to permit teachers to confine their instruction within them.

The new programme for arithmetic commences with the words Decimal numeration. This is to indicate that the Duodecimal numeration will not be required.

The only practical verification of Addition and Multiplication, is to recommence these operations in a different order.

The Division of whole numbers is the first question considered at all difficult. This difficulty arises from the complication of the methods by which division is taught. In some books its explanation contains twice as many reasons as is necessary. The mind becomes confused by such instruction, and no longer understands what is a demonstration, when it sees it continued at the moment when it appeared to be finished. In most cases the demonstration is excessively complicated and does not follow the same order as the practical rule, to which it is then necessary to return. There lies the evil, and it is real and profound.

The phrase of the programme, Division of whole numbers, intends that the pupil shall be required to explain the practical rule, and be able to use it in a familiar and rapid manner. We do not present any particular mode of demonstration, but, to explain our views, we will indicate how we would treat the subject if we were making the detailed programme of a *course* of arithmetic, and not merely that of an *examination.* It would be somewhat thus:

"The quotient may be found by addition, subtraction, multiplication;

"Division of a number by a number of one figure, when the quotient is less than 10;

"Division of any number by a number less than 10;

"Division of any two numbers when the quotient has only one figure;

"Division in the most general case.

"*Note.*—The practical rule may be entirely explained by this consideration, that by multiplying the divisor by different numbers, we see if the quotient is greater or less than the multiplier."

The properties of the Divisors of numbers, and the decomposition of a number into prime factors should be known by the student. But here also we recommend simplicity. The theory of the greatest common divisor, for example, has no need to be given with all the details with which it is usually surrounded, for it is of no use in practice.

The calculation of Decimal numbers is especially that in which it is indispensable to exercise students. Such are the numbers on which they will generally have to operate. It is rare that the data of a question are whole numbers; usually they are decimal numbers which are not even known with rigor, but only with a given decimal approximation; and the result which is sought is to deduce from these, other decimal numbers, themselves exact to a certain degree of approximation, fixed by the conditions of the problem. It is thus that this subject should be taught. The pupil should not merely learn how, in one or two cases, he can obtain a result to within $\frac{1}{n}$, n being any number, but how to arrive by a practicable route to results which are exact to within a required decimal, and on the correctness of which they can depend.

Let us take decimal multiplication for an example. Generally the pupils do not know any other rule than "to multiply one factor by the other, without noticing the decimal point, except to cut off on the right of the product as many decimal figures as there are in the two factors." The rule thus enunciated is methodical, simple, and apparently easy. But, in reality, it is practically of a repulsive length, and is most generally inapplicable.

Let us suppose that we have to multiply together two numbers having each six decimals, and that we wish to know the product also to the sixth decimal. The above rule will give twelve decimals, the last six of which, being useless, will have caused by their calculation the loss of precious time. Still farther; when a factor of a product is given with six decimals, it is because we have stopped in its determination at that degree of approximation, neglecting the following decimals; whence it results that several of the decimals situated on the right of the calculated product are not those which would belong to the rigorous product. What then is the use of taking the trouble of determining them?

We will remark lastly that if the factors of the product are incommensurable, and if it is necessary to convert them into decimals before effecting the multiplication, we should not know how far we should carry the approximation of the factors before applying the above rule. It will therefore be necessary to teach the pupils the abridged methods by which we succeed, at the same time, in using fewer figures and in knowing the real approximation of the result at which we arrive.

Periodical decimal fractions are of no use. The two elementary questions of the programme are all that need be known about them.

The Extraction of the square root must be given very carefully, especially that of decimal numbers. It is quite impossible here to observe the rule of having in the square twice as many decimals as are required in the root. That rule is in fact impracticable when a series of operations is to be effected. "When a number N increases by a comparatively small quantity d, the square of that number increases very nearly as $2Nd$." It is thus that we determine the approximation with which a number must be calculated so that its square root may afterwards be obtained with the necessary exactitude. This supposes that before determining the square with all necessary precision, we have a suitable lower limit of the value of the root, which can always be done without difficulty.

The Cube root is included in the programme. The pupils should know this; but while it will be necessary to exercise them on the extraction of the square root by numerous examples, we should be very sparing of this in the cube root, and not go far beyond the mere theory. The calculations become too complicated and waste too much time. Logarithms are useful even for the square root; and quite indispensable for the cube root, and still more so for higher roots.

When a question contains only quantities which vary in the same ratio, or in an inverse ratio, it is immediately resolved by a very simple method, known under the name of *reduction to unity.* The result once obtained, it is indispensable to make the pupils remark that it is composed of the quantity which, among the data, is of the nature of that which is sought, multiplied successively by a series of abstract ratios between other quantities which also, taken two and two, are of the same nature. Hence flows the rule for writing directly the required result, without being obliged to take up again for each question the series of reasonings. This has the advantage, not only of saving time, but of better showing the spirit of the method, of making clearer the meaning of the solution, and of preparing for the subsequent use of formulas. The consideration of "homogeneity" conduces to these results.

We recommend teachers to abandon as much as possible the use of examples in abstract numbers, and of insignificant problems, in which the data, taken at random, have no connection with reality. Let the examples and the exercises presented to students always relate to objects which are found in the arts, in industry, in nature, in physics, in the system of the world. This will have many advantages. The precise meaning of the solutions will be better grasped. The pupils will thus acquire, without any trouble, a stock of precise and precious knowledge of the world which surrounds them. They will also more willingly engage in numerical calculations, when their attention is thus incessantly aroused and sustained, and when the result, instead of being merely a dry number, embodies information which is real, useful, and interesting.

The former arithmetical programme included the theory of *progressions* and *logarithms;* the latter being deduced from the former. But the theory of logarithms is again deduced in algebra from exponents, much the best method. This constitutes an objectionable "*double emploi.*" There is finally no good reason for retaining these theories in arithmetic.

The programme retains the questions which can be solved by making two arbitrary and successive hypotheses on the desired result. It is true that these questions can be directly resolved by means of a simple equation of the first degree; but we have considered that, since the resolution of problems by means of hypotheses, constitutes the most fruitful method really used in practice, it is well to accustom students to it the soonest possible. This is the more necessary, because teachers have generally pursued the opposite course, aiming especially to give their pupils direct solutions, without reflecting that the theory of these is usually much more complicated, and that the mind of the learner thus receives a direction exactly contrary to that which it will have to take in the end.

"Proportions" remain to be noticed.

In most arithmetics problems are resolved first by the method of "reduction to unity," and then by the theory of proportions. But beside the objection of the "*double emploi*," it is very certain that the method of reduction to unity presents, in their true light and in a complete and simple manner, all the questions of ratio which are the bases of arithmetical solutions; so that the subsequent introduction of proportions teaches nothing new to the pupils, and only presents the same thing in a more complicated manner. We therefore exclude from our programme of examination the solution of questions of arithmetic, presented under the special form which constitutes the theory of proportions.

This special form we would be very careful not to invent, if it had not already been employed. Why not say simply "The ratio of M to N is equal to that of P to Q," instead of hunting for this other form of enunciating the same idea, "M *is to* N *as* P *is to* Q"? It is in vain to allege the necessities of geometry; if we consider all the questions in which proportions are used, we shall see that the simple consideration of the equality of ratios is equally well adapted to the simplicity of the enunciation and the clearness of the demonstrations. However, since all the old books of geometry make use of proportions, we retain the properties of proportions at the end of our programme; but with this express reserve, that the examiners shall limit themselves to the simple properties which we indicate, and that they shall not demand any application of proportions to the solution of arithmetical problems.

PROGRAMME OF ARITHMETIC.

Decimal numeration.

Addition and subtraction of whole numbers.

Multiplication of whole numbers.—Table of Pythagoras.—The product of several whole numbers does not change its value, in whatever order the multiplications are effected.—To multiply a number by the product of several factors, it is sufficient to multiply successively by the factors of the product.

Division of whole numbers.—To divide a number by the product of several factors, it is sufficient to divide successively by the factors of the product.

Remainders from dividing a whole number by 2, 3, 5, 9, and 11.—Applications to the characters of divisibility by one of those numbers; to the verification of the product of several factors; and to the verification of the quotient of two numbers.

Prime numbers. Numbers prime to one another.

To find the greatest common divisor of two numbers.—If a number divides a product of two factors, and if it is prime to one of the factors, it divides the other.—To decompose a number into its prime factors.—To determine the smallest number divisible by given numbers.

Vulgar fractions.

A fraction does not alter in value when its two terms are multiplied or divided by the same number. Reduction of a fraction to its simplest expression. Reduction of several fractions to the same denominator. Reduction to the smallest common denominator.—To compare the relative values of several fractions.

Addition and subtraction of fractions.—Multiplication. Fractions of fractions.—Division.

Calculation of numbers composed of an entire part and a fraction.

Decimal numbers.

Addition and subtraction.

Multiplication and division.—How to obtain the product of the quotient to within a unit of any given decimal order.

To reduce a vulgar fraction to a decimal fraction.—When the denominator of an irreducible fraction contains other factors than 2 and 5, the fraction cannot be exactly reduced to decimals; and the quotient, which continues indefinitely, is periodical.

To find the vulgar fraction which generates a periodical decimal fraction: 1° when the decimal fraction is simply periodical; 2° when it contains a part not periodical.

System of the new measures.

Linear Measures.—Measures of surface.—Measures of volume and capacity.—Measures of weight.—Moneys.—Ratios of the principal foreign measures (England, Germany, United States of America) to the measures of France.

Of ratios. Resolution of problems.

General notions on quantities which vary in the same ratio or in an inverse ratio.—Solution, by the method called *Reduction to unity*, of the simplest questions in which such quantities are considered.—To show the homogeneity of the results which are arrived at; thence to deduce the general rule for writing directly the expression of the required solution.

Simple interest.—General formula, the consideration of which furnishes the solution of questions relating to simple interest.—Of discount, as practised in commerce.

To divide a sum into parts proportional to given numbers.

Of questions which can be solved by two arbitrary and successive hypotheses made on the desired result.

Of the square and of the square root. Of the cube and of the cube root.

Formation of the square and the cube of the sum of two numbers.—Rules for extracting the square root and the cube root of a whole number.—If this root is not entire, it cannot be exactly expressed by any number, and is called incommensurable.

Square and cube of a fraction.—Extraction of the square root and cube root of vulgar fractions.

Any number being given, either directly, or by a series of operations which permit only an approximation to its value by means of decimals, how to extract the square root or cube root of that number, to within any decimal unit.

Of the proportions called geometrical.

In every proportion the product of the extremes is equal to the product of the means.—Reciprocal proportion.—Knowing three terms of a proportion to find the fourth.—Geometrical mean of two numbers.—How the order of the terms of a proportion can be inverted without disturbing the proportion.

When two proportions have a common ratio, the two other ratios form a proportion.

In any proportion, each antecedent may be increased or diminished by its consequent without destroying the proportion.

When the corresponding terms of several proportions are multiplied together, the four products form a new proportion.—The same powers or the same roots of four numbers in proportion form a new proportion.

In a series of equal ratios, the sum of any number of antecedents and the sum of their consequents are still in the same ratio.

II. GEOMETRY

Some knowledge of Geometry is, next to arithmetic, most indispensable to every one, and yet very few possess even its first principles. This is the fault of the common system of instruction. We do not pay sufficient regard to the natural notions about straight lines, angles, parallels, circles, etc., which the young have acquired by looking around them, and which their minds have unconsciously considered before making them a regular study. We thus waste time in giving a dogmatic form to truths which the mind seizes directly.

The illustrious *Clairaut* complains of this, and of the instruction commencing always with a great number of definitions, postulates, axioms, and preliminary principles, dry and repulsive, and followed by propositions equally uninteresting. He also condemns the profusion of self-evident propositions, saying, "It is not surprising that Euclid should give himself the trouble to demonstrate that two circles which intersect have not the same centre; that a triangle situated within another has the sum of its sides smaller than that of the sides of the triangle which contains it; and so on. That geometer had to convince obstinate sophists, who gloried in denying the most evident truths. It was therefore necessary that geometry, like logic, should then have the aid of formal reasonings, to close the mouths of cavillers; but in our day things have changed face; all reasoning about what mere good sense decides in advance is now a pure waste of time, and is fitted only to obscure the truth and to disgust the reader."

Bezout also condemns the multiplication of the number of theorems, propositions, and corollaries; an array which makes the student dizzy, and amid which he is lost. All that follows from a principle should be given in natural language as far as possible, avoiding the dogmatic form. It is true that some consider the works of Bezout deficient in rigor, but he knew better than any one what really was a demonstration. Nor do we find in the works of the great old masters less generality of views, less precision, less clearness of conception than in modern treatises. Quite the contrary indeed.

We see this in Bezout's *definition of a right line*—that it tends continually towards one and the same point; and in that of *a curved line*—that it is the trace of a moving point, which turns aside infinitely little at each step of its progress; definitions most fruitful in consequences. When we define a right line as the shortest path from one point to another, we enunciate a property of that line which is of no use for demonstrations. When we define a curved line as one which is neither straight nor composed of straight lines, we enunciate two negations which can lead to no result, and which have no connection with the peculiar nature of the curved line. Bezout's definition, on the contrary, enters into the nature of the object to be defined, seizes its mode of being, its character, and puts the reader immediately in possession of the general idea from which are afterwards deduced the properties of curved lines and the construction of their tangents.

So too when Bezout says that, in order to form an exact idea of an angle, it is necessary to consider the movement of a line turning around one of its points, he gives an idea at once more just and more fruitful in consequences, both mathematical and mechanical, than that which is limited to saying, that the indefinite space comprised between two straight lines which meet in a point, and which may be regarded as prolonged indefinitely, is called an *angle;* a definition not very easily comprehended and absolutely useless for ulterior explanations, while that of Bezout is of continual service.

We therefore urge teachers to return, in their demonstrations, to the simplest ideas, which are also the most general; to consider a demonstration as finished and complete when it has evidently caused the truth to enter into the mind of the pupil, and to add nothing merely for the sake of silencing sophists.

Referring to our Programme of Geometry, given below, our first comments relate to the "Theory of parallels." This is a subject on which all students fear to be examined; and this being a general feeling, it is plain that it is not their fault, but that of the manner in which this subject is taught. The omission of the natural idea of the constant direction of the right line (as defined by Bezout) causes the complication of the first elements; makes it necessary for Legendre to demonstrate that all right angles are equal (a proposition whose meaning is rarely understood); and is the real source of all the pretended difficulties of the theory of parallels. These difficulties are now usually avoided by the admission of a *postulate*, after the example of Euclid, and to regulate the practice in that matter, we have thought proper to prescribe that this proposition—*Through a given point only a single parallel to a right line can be drawn*—should be admitted purely and simply, without demonstration, and as a direct consequence of our idea of the nature of the right line.

We should remark that the order of ideas in our programme supposes the properties of lines established without any use of the properties of surfaces. We think that, in this respect, it is better to follow Lacroix than Legendre.

When we prove thus that three parallels always divide two right lines into proportional parts, this proposition can be extended to the case in which the ratio of the parts is incommensurable, either by the method called *Reductio ad absurdum*, or by the method of *Limits*. We especially recommend the use of the latter method. The former has in fact nothing which satisfies the mind, and we should never have recourse to it, for it is always possible to do without it. When we have proved to the pupil that a desired quantity, X, cannot be either larger or smaller than A, the pupil is indeed forced to admit that X and A are equal; but that does not make him understand or feel why that equality exists. Now those demonstrations which are of such a nature that, once given, they disappear, as it were, so as to leave to the proposition demonstrated the character of a truth evident *à priori*, are those which should be carefully sought for, not only because they make that truth better felt, but because they better prepare the mind for conceptions of a more elevated order. The method of limits, is, for a certain number of questions, the only one which possesses this characteristic—that the demonstration is closely connected with the essential nature of the proposition to be established.

In reference to the relations which exist between the sides of a triangle and the segments formed by perpendiculars let fall from the summits, we will, once for all, recommend to the teacher, to exercise his students in making numerical applications of relations of that kind, as often as they shall present themselves in the course of geometry. This is the way to cause their meaning to be well understood, to fix them in the mind of students, and to give these the exercise in numerical calculation to which we positively require them to be habituated.

The theory of similar figures has a direct application in the art of surveying for plans (*Lever des plans*). We wish that this application should be given to the pupils in detail; that they should be taught to range out and measure a straight line on the ground; that a graphometer should be placed in their hands; and that they should use it and the chain to obtain on the ground, for themselves, all the data necessary for the construction of a map, which they will present to the examiners with the calculations in the margins.

It is true that a more complete study of this subject will have to be subsequently made by means of trigonometry, in which calculation will give more precision than these graphical operations. But some pupils may fail to extend their studies to trigonometry (the course given for the Polytechnic school having become the model for general instruction in France), and those who do will thus learn that trigonometry merely gives means of more precise calculation. This application will also be an encouragement to the study of a science whose utility the pupil will thus begin to comprehend.

It is common to say that an angle is measured by the arc of a circle, described from its summit or centre, and intercepted between its sides. It is true that teachers add, that since a quantity cannot be measured except by one of the same nature, and since the arc of a circle is of a different nature from an angle, the preceding enunciation is only an abridgment of the proposition by which we find the ratio of an angle to a right angle. Despite this precaution, the unqualified enunciation which precedes, causes uncertainty in the mind of the pupil, and produces in it a lamentable confusion. We will say as much of the following enunciations: "A dihedral angle is measured by the plane angle included between its sides;" "The surface of a spherical triangle is measured by the excess of the sum of its three angles above two right angles," etc.; enunciations which have no meaning in themselves, and from which every trace of homogeneity has disappeared. Now that everybody is requiring that the students of the Polytechnic school should better understand the meaning of the formulas which they are taught, which requires that their homogeneity should always be apparent, this should be attended to from the beginning of their studies, in geometry as well as in arithmetic. The examiners must therefore insist that the pupils shall never give them any enunciations in which homogeneity is not preserved.

The proportionality of the circumferences of circles to their radii must be inferred *directly* from the proportionality of the perimeters of regular polygons, of the same number of sides, to their apothems. In like manner, from the area of a regular polygon being measured by half of the product of its perimeter by the radius of the inscribed circle, it must be *directly* inferred that the area of a circle is measured by half of the product of its circumference by its radius. For a long time, these properties of the circle were differently demonstrated by proving, for example, with Legendre, that the measure of the circle could not be either smaller or greater than that which we have just given, whence it had to be inferred that it must be equal to it. The "Council of improvement" finally decided that this method should be abandoned, and that the method of limits should alone be admitted, in the examinations, for demonstrations of this kind. This was a true advance, but it was not sufficient. It did not, as it should, go on to consider the circle, purely and simply, as the limit of a series of regular polygons, the number of whose sides goes on increasing to infinity, and to regard the circle as possessing every property demonstrated for polygons. Instead of this, they inscribed and circumscribed to the circle two polygons of the same number of sides, and proved that, by the multiplication of the number of the sides of these polygons, the difference of their areas might become smaller than any given quantity, and thence, finally, deduced the measure of the area of the circle; that is to say, they took away from the method of limits all its advantage as to simplicity, by not applying it *frankly*.

We now ask that this shall cease; and that we shall no longer reproach for want of rigor, the Lagranges, the Laplaces, the Poissons, and Leibnitz, who has given us this principle: that "A curvilinear figure may be regarded as equivalent to a polygon of an infinite number of sides; whence it follows that whatsoever can be demonstrated of such a polygon, no regard being paid to the number of its sides, the same may be asserted of the curve." This is the principle for *the most simple* application of which to the measure of the circle and of the round bodies we appeal.

Whatever may be the formulas which may be given to the pupils for the determination of the ratio of the circumference to the diameter (the "Method of isoperimeters" is to be recommended for its simplicity), they must be required to perform the calculation, so as to obtain at least two or three exact decimals. These calculations, made with logarithms, must be methodically arranged and presented at the examination. It may be known whether the candidate is really the author of the papers, by calling for explanations on some of the steps, or making him calculate some points afresh.

The enunciations relating to the measurement of areas too often leave indistinctness in the minds of students, doubtless because of their form. We desire to make them better comprehended, by insisting on their application by means of a great number of examples.

As one application, we require the knowledge of the methods of surveying for content (*arpentage*), differing somewhat from the method of triangulation, used in the surveying for plans (*lever des plans*). To make this application more fruitful, the ground should be bounded on one side by an irregular curve. The pupils will not only thus learn how to overcome this practical difficulty, but they will find, in the calculation of the surface by means of trapezoids, the first application of the method of quadratures, with which it is important that they should very early become familiar. This application will constitute a new sheet of drawing and calculations to be presented at the examination.

Most of our remarks on plane geometry apply to geometry of three dimensions. Care should be taken always to leave homogeneity apparent, and to make numerous applications to the measurement of volumes.

The theory of similar polyhedrons often gives rise in the examinations of the students to serious difficulties on their part. These difficulties belong rather to the form than to the substance, and to the manner in which each individual mind seizes relations of position; relations always easier to feel than to express. The examiners should be content with arriving at the results enunciated in our programme, by the shortest and easiest road.

The simplicity desired cannot however be attained unless all have a common starting-point, in the definition of similar polyhedrons. The best course is assuredly to consider that theory in the point of view in which it is employed in the arts, especially in sculpture; i. e. to conceive the given system of points, M, N, P, ... to have lines passing from them through a point S, the *pole of similitude*, and prolonged beyond it to M′, N′, P′, ... so that SM′, SN′, SP′, ... are proportional to SM, SN, SP, ... Then the points M′, N′, P′, ... form a system *similar* to M, N, P, ...

The areas and volumes of the cylinder, of the cone, and of the sphere must be deduced from the areas and from the volumes of the prism, of the pyramid, and of the polygonal sector, with the same simplicity which we have required for the measure of the surface of the circle, and for the same reasons. It is, besides, the only means of easily extending to cones and cylinders with any bases whatever, right or oblique, those properties of cones and cylinders,—right and with circular bases,—which are applicable to them.

Numerical examples of the calculations, by logarithms, of these areas and volumes, including the area of a spherical triangle, will make another sheet to be presented to the examiners.

PROGRAMME OF GEOMETRY.

1. OF PLANE FIGURES.

Measure of the distance of two points.—Two finite right lines being given, to find their common measure, or at least their approximate ratio.

Of angles.—Right, acute, obtuse angles.—Angles vertically opposite are equal.

Of triangles.—Angles and sides.—The simplest cases of equality.—Elementary problems on the construction of angles and of triangles.

Of perpendiculars and of oblique lines.

Among all the lines that can be drawn from a given point to a given right line, the perpendicular is the shortest, and the oblique lines are longer in proportion to their divergence from the foot of the perpendicular.

Properties of the isosceles triangle.—Problems on tracing perpendiculars.—Division of a given straight line into equal parts.

Cases of equality of right-angled triangles.

Of parallel lines.

Properties of the angles formed by two parallels and a secant.—Reciprocally, when these properties exist for two right lines and a common secant, the two lines are parallel.*—Through a given point, to draw a right line parallel to a given right line, or cutting it at a given angle.—Equality of angles having their sides parallel and their openings placed in the same direction.

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* It will be admitted, as a postulate, that only one parallel to a given right line can pass through a given point.

Sum of the angles of a triangle.

The parts of parallels intercepted between parallels are equal, and reciprocally.

Three parallels always divide any two right lines into proportional parts. The ratio of these parts may be incommensurable.—Application to the case in which a right line is drawn, in a triangle, parallel to one of its sides.

To find a fourth proportional to three given lines.

The right line, which bisects one of the angles of a triangle, divides the opposite side into two segments proportional to the adjacent sides.

Of similar triangles.

Conditions of similitude.—To construct on a given right line, a triangle similar to a given triangle.

Any number of right lines, passing through the same point and met by two parallels, are divided by these parallels into proportional parts, and divide them also into proportional parts.—To divide a given right line in the same manner as another is divided.—Division of a right line into equal parts.

If from the right angle of a right-angled triangle a perpendicular is let fall upon the hypothenuse, 1° this perpendicular will divide the triangle into two others which will be similar to it, and therefore to each other; 2° it will divide the hypothenuse into two segments, such that each side of the right angle will be a mean proportional between the adjacent segment and the entire hypothenuse; 3° the perpendicular will be a mean proportional between the two segments of the hypothenuse.

In a right-angled triangle, the square of the number which expresses the length of the hypothenuse is equal to the sum of the squares of the numbers which express the lengths of the other two sides.

The three sides of any triangle being expressed in numbers, if from the extremity of one of the sides a perpendicular is let fall on one of the other sides, the square of the first side will be equal to the sum of the squares of the other two, *minus* twice the product of the side on which the perpendicular is let fall by the distance of that perpendicular from the angle opposite to the first side, if the angle is *acute*,and *plus* twice the same product, if this angle is *obtuse.*

Of polygons.

Parallelograms.—Properties of their angles and of their diagonals.

Division of polygons into triangles.—Sum of their interior angles.—Equality and construction of polygons.

Similar polygons.—Their decomposition into similar triangles.—The right lines similarly situated in the two polygons are proportional to the homologous sides of the polygons.—To construct, on a given line, a polygon similar to a given polygon.—The perimeters of two similar polygons are to each other as the homologous sides of these polygons.

Of the right line and the circumference of the circle.

Simultaneous equality of arcs and chords in the same circle.—The greatest arc has the greatest chord, and reciprocally.—Two arcs being given in the same circle or in equal circles, to find the ratio of their lengths.

Every right line drawn perpendicular to a chord at its middle, passes through the centre of the circle and through the middle of the arc subtended by the chord.—Division of an arc into two equal parts.—To pass the circumference of a circle through three points not in the same right line.

The tangent at any point of a circumference is perpendicular to the radius passing through that point.

The arcs intercepted in the same circle between two parallel chords, or between a tangent and a parallel chord, are equal.

Measure of angles.

If from the summits of two angles two arcs of circles be described with the same radius, the ratio of the arcs included between the sides of each angle will be the same as that of these angles.—Division of the circumference into degrees, minutes, and seconds.—Use of the protractor.

An angle having its summit placed, 1° at the centre of a circle; 2° on the circumference of that circle; 3° within the circle between the centre and the circumference; 4° without the circle, but so that its sides cut the circumference; to determine the ratio of that angle to the right angle, by the consideration of the arc included between its sides.

From a given point without a circle, to draw a tangent to that circle.

To describe, on a given line, a segment of a circle capable of containing a given angle.

To make surveys for plans. (*Lever des plans.*)

Tracing a straight line on the ground.—Measuring that line with the chain.

Measuring angles with the graphometer.—Description of it.

Drawing the plan on paper.—Scale of reduction.—Use of the rule, the triangle, and the protractor.

To determine the distance of an inaccessible object, with or without the graphometer.

Three points, A, B, C, being situated on a smooth surface and represented on a map, to find thereon the point P from which the distances A B and A C have been seen under given angles. "The problem of the three points." "The *Trilinear* problem."

Of the contact and of the intersection of circles.

Two circles which pass through the same point of the right line which joins their centres have in common only that point in which they touch; and reciprocally, if two circles touch, their centres and the point of contact lie in the same right line.

Conditions which must exist in order that two circles may intersect.

Properties of the secants of the circle.

Two secants which start from the same point without the circle, being prolonged to the most distant part of the circumference, are reciprocally proportional to their exterior segments.—The tangent is a mean proportional between the secant and its exterior segment.

Two chords intersecting within a circle divide each other into parts reciprocally proportional.—The line perpendicular to a diameter and terminated by the circumference, is a mean proportional between the two segments of the diameter.

A chord, passing through the extremity of the diameter, is a mean proportional between the diameter and the segment formed by the perpendicular let fall from the other extremity of that chord.—To find a mean proportional between two given lines.

To divide a line in extreme and mean ratio.—The length of the line being given numerically, to calculate the numerical value of each of the segments.

Of polygons inscribed and circumscribed to the circle.

To inscribe or circumscribe a circle to a given triangle.

Every regular polygon can be inscribed and circumscribed to the circle.

A regular polygon being inscribed in a circle, 1° to inscribe in the same circle a polygon of twice as many sides, and to find the length of one of the sides of the second polygon; 2° to circumscribe about the circle a regular polygon of the same number of sides, and to express the side of the circumscribed polygon by means of the side of the corresponding inscribed polygon.

To inscribe in a circle polygons of 4, 8, 16, 32......sides.

To inscribe in a circle polygons of 3, 6, 12, 24, ...sides.

To inscribe in a circle polygons of 5, 10, 20, 40.....sides.

To inscribe in a circle polygons of 15, 30, 60.......sides.

Regular polygons of the same number of sides are similar, and their perimeters are to each other as the radii of the circles to which they are inscribed or circumscribed.—The circumferences of circles are to each other as their radii.

To find the approximate ratio of the circumference to the diameter.

Of the area of polygons and of that of the circle.

Two parallelograms of the same base and of the same height are equivalent.—Two triangles of the same base and height are equivalent.

The area of a rectangle and that of a parallelogram are equal to the product of the base by the height.—What must be understood by that enunciation.—The area of a triangle is measured by half of the product of the base by the height.

To transform any polygon into an equivalent square.—Measure of the area of a polygon.—Measure of the area of a trapezoid.

The square constructed on the hypothenuse of a right-angled triangle is equivalent to the sum of the squares constructed on the other two sides.—The squares constructed on the two sides of the right angle of a right-angled triangle and on the hypothenuse are to each other as the adjacent segments and entire hypothenuse.

The areas of similar polygons are to each other as the squares of the homologous sides of the polygons.

Notions on surveying for content (*arpentage*).—Method of decomposition into triangles.—Simpler method of decomposition into trapezoids.—Surveyor's cross.—Practical solution, when the ground is bounded, in one or more parts, by a curved line.

The area of a regular polygon is measured by half of the product of its perimeter by the radius of the inscribed circle.—The area of a circle is measured by half of the product of the circumference by the radius.—The areas of circles are to each other as the squares of the radii.

The area of a sector of a circle is measured by half of the product of the arc by the radius.—Measure of the area of a segment of a circle.

2. OF PLANES AND BODIES TERMINATED BY PLANE SURFACES.

Conditions required to render a right line and a plane respectively perpendicular. Of all the lines which can be drawn from a given point to a given plane, the perpendicular is the shortest, and the oblique lines are longer in proportion to their divergence from the foot of the perpendicular.

Parallel right lines and planes.—Angles which have their sides parallel, and their openings turned in the same direction, are equal, although situated in different planes.

Dihedral angle.—How to measure the ratio of any dihedral angle to the right dihedral angle.

Planes perpendicular to each other.—The intersection of two planes perpendicular to a third plane, is perpendicular to this third plane.

Parallel planes.—When two parallel planes are cut by a third plane the intersections are parallel.—Two parallel planes have their perpendiculars common to both.

The shortest distance between two right lines, not intersecting and not parallel.

Two right lines comprised between two parallel planes are always divided into proportional parts by a third plane parallel to the first two.

Trihedral angle.—The sum of any two of the plane angles which compose a trihedral angle is always greater than the third.

The sum of the plane angles which form a convex polyhedral angle is always less than four right angles.

If two trihedral angles are formed by the same plane angles, the dihedral angles comprised between the equal plane angles are equal.—There may be absolute equality or simple symmetry between the two trihedral angles.

Of polyhedrons.

If two tetrahedrons have each a trihedral angle composed of equal and similarly arranged triangles, these tetrahedrons are equal. They are also equal if two faces of the one are equal to two faces of the other, are arranged in the same manner, and form with each other the same dihedral angle.

When the triangles which form two homologous trihedral angles of two tetrahedrons are similar, each to each, and similarly disposed, these tetrahedrons are similar. They are also similar if two faces of the one, making with each other the same angle as two faces of the other, are also similar to these latter, and are united by homologous sides and summits.

Similar pyramids.—A plane parallel to the base of a pyramid cuts off from it a pyramid similar to it.—To find the height of a pyramid when we know the dimension of its trunk with parallel bases.

Sections made in any two pyramids at the same distance from these summits are in a constant ratio.

Parallelopipedon.—Its diagonals.

Any polyhedron can always be divided into triangular pyramids.—Two bodies composed of the same number of equal and similarly disposed triangular pyramids, are equal.

Similar polyhedrons.

The homologous edges of similar polyhedrons are proportional; as are also the diagonals of the homologous faces and the interior diagonals of the polyhedrons.—The areas of similar polyhedrons are as the squares of the homologous edges.

Measure of volumes.

Two parallelopipedons of the same base and of the same height are equivalent in volume.

If a parallelogram be constructed on the base of a triangular prism, and on that parallelogram, taken as a base, there be constructed a parallelopipedon of the same height as the triangular prism, the volume of this prism will be half of the volume of the parallelopipedon.—Two triangular prisms of the same base and the same height are equivalent.

Two tetrahedrons of the same base and the same height are equivalent.

A tetrahedron is equivalent to the third of the triangular prism of the same base and the same height.

The volume of any parallelopipedon is equal to the product of its base by its height.—What must be understood by that enunciation.—The volume of any prism is equal to the product of its base by its height.

The volume of a tetrahedron and that of any pyramid are measured by the third of the product of the base by the height.

Volume of the truncated oblique triangular prism.

The volumes of two similar polyhedrons are to each other as the cubes of the homologous edges.

3. OF ROUND BODIES.

Of the right cone with circular base.

Sections parallel to the base.—Having the dimensions of the trunk of a cone with parallel bases, to find the height of the entire cone.

The area of a right cone is measured by half of the product of the circumference of its circular base by its side.—Area of a trunk of a right cone with parallel bases.

Volume of a pyramid inscribed in the cone.—The volume of a cone is measured by the third of the product of the area of its base by its height.

Which of the preceding properties belong to the cone of any base whatever?

Of the right cylinder with circular base.

Sections parallel to the base.

The area of the convex surface of the right cylinder is measured by the product of the circumference of its base by its height.—This is also true of the right cylinder of any base.

Measure of the volume of a prism inscribed in the cylinder.—The volume of a right cylinder is measured by the product of the area of its base by its height.—This is also true of any cylinder, right or oblique, of any base whatever.

Of the sphere.

Every section of the sphere, made by a plane, is a circle.—Great circles and small circles.

In every spherical triangle any one side is less than the sum of the other two. The shortest path from one point to another, on the surface of the sphere, is the arc of a great circle which joins the two given points.

The sum of the sides of a spherical triangle, or of any spherical polygon, is less than the circumference of a great circle.

Poles of an arc of a great or small circle.—They serve to trace arcs of circles on the sphere.

Every plane perpendicular to the extremity of a radius is tangent to the sphere.

Measure of the angle of two arcs of great circles.

Properties of the polar or supplementary triangle.

Two spherical triangles situated on the same sphere, or on equal spheres, are equal in all their parts, 1° when they have an equal angle included between sides respectively equal; 2° when they have an equal side adjacent to two angles respectively equal; 3° when they are mutually equilateral; 4° when they are mutually equiangular. In these different cases the triangles may be equal, or merely symmetrical.

The sum of the angles of any spherical triangle is less than six, and greater than two, right angles.

The lune is to the surface of the sphere as the angle of that lune is to four right angles.

Two symmetrical spherical triangles are equivalent in surface.

The area of a spherical triangle is to that of the whole sphere as the excess of the sum of its angles above two right angles is to eight right angles.

When a portion of a regular polygon, inscribed in the generating circle of the sphere, turns around the diameter of that circle, the convex area engendered is measured by the product of its height by the circumference of the circle inscribed in the generating polygon.—The volume of the corresponding polygonal sector is measured by the area thus described, multiplied by the third of the radius of the inscribed circle.

The surface of a spherical zone is equal to the height of that zone multiplied by the circumference of a great circle.—The surface of the sphere is quadruple that of a great circle.

Every spherical sector is measured by the zone which forms its base, multiplied by the third of the radius. The whole sphere is measured by its surface multiplied by the third of its radius.

[To be concluded in the next number.]

Your Obed. Serv—

T H Perkins

BENEFACTORS OF EDUCATION, LITERATURE AND SCIENCE.*

THOMAS HANDASYD PERKINS.

THOMAS HANDASYD PERKINS, whose name is indissolubly and honorably associated with one of the most interesting educational charities of our age and country, was born in Boston, December 15th, 1764. His father was a merchant, who died in middle age, leaving a widow and eight children, most of them very young. His mother was a woman of excellent principles and remarkable energy, and reared her children with such advantages as fitted them for stations of responsibility, which they afterwards filled with credit to themselves and to her. She took an active part in the charitable associations of Boston, and, on her decease in 1807, the officers of the Female Asylum "voted to wear a badge of mourning for the term of seventy-one days" (corresponding probably to the years of her life), "in token of their high consideration and respect for the virtues of the deceased, and of their grateful and affectionate sense of her liberal and essential patronage as a founder and friend of the institution."

His mother decided on giving him a collegiate education, and he was sent, with other boys from Boston, to an instructor at Hingham, the Rev. Mr. Shute, noted for his success in preparing lads for college. After residing there three years, and being prepared for Cambridge, he was so reluctant to enter college, that it was decided that he should go into a counting-house.† He was strongly inclined by

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* This sketch is abridged, by permission of the author, from an article in Hunt's Merchants' Magazine for July, 1855, with some facts gleaned from the "*Biography of Thomas Handasyd Perkins*," by Thomas G. Cary, published by Little, Brown & Co., Boston, 1856. This volume, published in a cheaper form, would be a fit companion for the "Life and Correspondence of Amos Lawrence," in School Libraries, and in the hands of every young man destined for a commercial career.

† Long afterward he recurred to this decision with regret for having relinquished such a privilege, and in advanced age repeatedly said that, other things being equal (which condition he repeated emphatically), he should prefer for commercial pursuits those who had received the most complete education. In this opinion he seems to have coincided with another experienced merchant, who once gave it as the result of his observation in a long life, that as a general rule applied to the whole class of commercial men, of whom it is well known that a considerable proportion fail, those had succeeded best who were the best educated. It derives confirmation too, from a fact generally noticed, both here and in Europe, by those who know what goes on in the public schools where lads are prepared by different courses of study respectively, either for college or for mercantile life, as their friends prefer. Those who are engaged in classical studies for most of the week, and give but a small portion of it to other pursuits, are generally found to be well up in arithmetic, geography, &c., with those who bestow their whole time on such branches.

Without underrating the importance of a habit of attention to detail, or the knowledge of minute affairs and the qualities of merchandise, which may be acquired by early apprentice-temperament to active life. Vigorous and bold, with a frame peculiarly fitted for endurance, which was afterwards developed in fine proportions for strength and beauty in manhood, he saw less to attract him in the life of a student than in one of enterprise, where he might indulge a love of adventure and exercise the courage, equal to almost every emergency, which characterized him. He was placed with the Messrs. Shattuck, then among the most active merchants of Boston, with whom he remained until he was twenty-one.

On leaving the Messrs. Shattuck, in 1785, not being well, he was advised to pass the winter in a warm climate, and visited his elder brother, Mr. James Perkins, in St. Domingo, with whom he formed a business connection which was very successful.

The climate of St. Domingo not agreeing with his health, he returned to Boston in 1788, when he was married to Miss Jane Elliot, only daughter of Simon Elliot, Esq., — a union of affection which lasted for more than sixty years. In 1789 he turned his attention to trade with China, and sailed from Boston as supercargo of the ship Astræa, bound to Batavia and Canton. This voyage enlarged the horizon of his knowledge and aspirations, and led, in 1792, on the breaking up of his brother's house in St. Domingo by the revolutionary disturbance in that island, to a co-partnership with that brother, under the firm of J. & T. H. Perkins, which continued until the death of the senior member* in 1822. From that time till 1838 the business of the house was continued under the title of Perkins & Co., when it was dissolved, and Col. Perkins withdrew with a large fortune, after having been actively engaged for fifty years in commer-

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ship, it is to be remembered that men of high culture, who mean to effect what they attempt, show great aptitude for the minutiæ, as well as for the general scope, of any new business which they undertake, and that intellect well disciplined has considerable advantages in comparison with routine.

* James Perkins, Esq., died in the year 1822. The following passages from a notice of his death, published at the time, show the estimation in which he was held :

"While his real and most eloquent eulogy is to be sought in the course of an industrious, honorable, and most useful life, it is due to the virtues he practised, to the example he set, to the noble standard of character on which he acted, not to be entirely silent, now that nothing remains of them but their honored memory. He had received in boyhood, under the care of an excellent mother, the preparatory instruction which might have fitted him for an academical education ; but the approach of the Revolutionary War, and the discouraging aspect of the times, dictated the commercial career as more prudent.

"In enterprises extending over the habitable globe, employing thousands of agents, constantly involving fortunes in their result, and requiring, on many occasions necessarily incident to business of this extent, no secondary degree of firmness and courage, not a shadow of suspicion of anything derogatory to the highest and purest sense of honor and conscience ever attached to his conduct. The character of such a man ought to be held up for imitation."

Mr. James Perkins left a large fortune, acquired in this honorable course ; and is still remembered for distinguished liberality in all appeals, that were made when he lived, for charity or public good, to the affluent and generous in the community ; for his liberal donations to several institutions ; and especially for a munificent gift of real estate, of the value of about $20,000, to the Boston Athenæum, and the bequest of $20,000 more to the University at Cambridge.

cial transactions, which extended over the habitable globe, and employed thousands of agents, and involved fortunes in their result, without a shadow of suspicion resting on his credit or his honor.*

In this commercial business he travelled much, visiting everywhere objects of interest in natural scenery and the arts, making himself agreeable and useful to those whom he incidentally fell in with as fellow-travellers, and abroad leaving a very favorable impression of the character of his countrymen. When in France, in 1795, he witnessed the execution of Robespierre, and at the suggestion of our minister, Mr. Munroe, assisted in sending George Washington Lafayette out of Paris to this country, and in enabling the Marchioness to go with her daughters to Olmutz, and solace her husband in his deplorable confinement there. For this prompt, hazardous, and liberal interference in his behalf, he received the cordial thanks of Lafayette (who declared that the solace of the presence of his family thus secured to him had saved his life), and was afterwards invited to make General Washington a visit at his own residence at Mount Vernon.

Col. Perkins, although he took a lively interest in all that concerned the welfare of the community in which he lived, and was called to assist in the direction of public meetings, and to lead on important committees, was not ambitious of political distinction. He was, for a time, President of the Boston Branch of the United States Bank, was elected to the Senate of Massachusetts in 1807, and for twenty years afterwards was member of that body, or of the House of Representatives, was repeatedly solicited to accept a nomination for Congress, and at one time declined to take office in the national government as Secretary of the Navy. His large commercial engagements compelled him to hold all other demands on his time and attention in a subordinate place. In his own field of labor he exhibited an energy, forecast, diligence, liberality, and integrity, which could not be surpassed, and which were crowned with the most successful results. Far beyond any service which he might have rendered to the public by accepting any political trust, even though he should have discharged its duties with the highest success, we must rank the influence of his example in making GIVING to objects of science, education, and literature, as well as of charity and religion, A DUTY AND A HABIT of Boston merchants while living.

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* Col. Perkins derived the military title which was associated for more than fifty years with his name, from his having been made in 1796 commander of a military corps, which constituted the guard and escort for public occasions of the Governor in the Commonwealth of Massachusetts. The command was conferred at a time when the title was supposed to express for the wearer of it "that high and honorable feeling which makes gentlemen soldiers, and soldiers gentlemen."

In 1814 he took an active and very important part in measures for establishing the Massachusetts General Hospital with an asylum for the insane, the necessity for which had begun to be deeply felt. He was one of those to whom an act of incorporation had been granted for the purpose, with a valuable donation from the Commonwealth, on the condition that the sum of one hundred thousand dollars should be raised by subscription within a limited time. His name was at the head of the first list of trustees, and he undertook the work which his position involved with characteristic energy. His influence and his services were highly appreciated by those with whom he was engaged in that undertaking. The subscriptions were made on the condition that the full sum of one hundred thousand dollars should be obtained; so that the whole depended on entire success. Besides his exertions in rousing other subscribers, he and his elder brother contributed five thousand dollars each towards the fund, and it was completed agreeably to the terms of condition.

In 1826 it was proposed to raise a considerable sum for additions to the Athenæum. Something over thirty thousand dollars was required. Col. Perkins and his nephew, Mr. James Perkins, son and sole heir of his deceased brother, contributed one half of it, paying eight thousand dollars each, on the condition that the same amount should be subscribed by the public, which was done. He made other valuable donations to the Athenæum, and was, for several years, president of that institution.

Soon after this, having witnessed the successful commencement of railroads in England, he resolved to introduce them here; and having obtained a charter for the Granite Railway Company, he caused one or two miles in length to be made, for the purpose of transporting granite from the quarries in Quincy to the water. This was the first railroad built in this country, though there was a rough contrivance in Pennsylvania for the removal of coal, which is said to have preceded it.

In 1833 a movement was made to obtain funds for the establishment of a school for blind children in Boston. Having been deeply interested by an exhibition given to show their capacity for improvement, he made a donation of his mansion-house in Pearl-street, as a place for their residence. He gave it on the condition that the sum of fifty thousand dollars should be contributed by the public as a fund to aid in their support. Efforts were made accordingly to effect that object, and proved to be entirely successful. The school was thus placed on a stable foundation, and by means that insured it continued care. The incitement which had thus been offered to the community to secure so valuable an estate as a gift to the public, roused general attention to the subject that could induce such a donation. Mutual sympathy in endeavoring to effect the purpose was a natural result. This became widely diffused. An institution which thus offered intelligence, enjoyment, and usefulness, in the place of ignorance, sorrow, and idleness, was recognized by the government of the state as deserving aid from the Commonwealth, and liberal public provision was made for the education there of blind children whose parents needed assistance.

Under the direction of Dr. S. G. Howe, it has been eminently successful, and is known through the country as an important example of what may be done. Indeed, it may be said further, that the country itself is more widely and favorably known in the Old World, from the annual reports of what has been effected there, not only by improvements in the art of printing for the blind, but by new discoveries in the possibility of instruction, which he has demonstrated.

The publications from the press of the institution, under his care, probably comprise more matter than all the other works in the English language that have ever been published for the use of the blind; and, at the recent "Exhibition of the Works of Industry of all Nations" in the Crystal Palace of London, the prize medal was awarded to his specimens for the best system of letters and the best mode of printing such books. But, beyond this, Dr. Howe has enlarged the science of mind by reaching and developing the intellect of the blind and deaf mute, shut up from human intercourse by obstruction in all the avenues of the senses but one; and proved that the single sense of touch can be made the medium for effectual instruction in reading and writing, and for the free interchange even of the most refined and delicate sentiments that are known to the heart of woman. In this he was the first to reduce to certainty what had before been only a problem, and has shown that there is no solid ground for the principle of law on the subject, as laid down by Blackstone, that "a man who is born deaf, dumb, and blind, is looked upon by the law as in the same state with an idiot; he being supposed incapable of any understanding, as wanting all those senses which furnish the human mind with ideas."

The estate given by Col. Perkins, although spacious in extent, was becoming, from its position, better suited for purposes of trade than of residence. From the same cause, however, it was rising in pecuniary value, and not long afterwards it was exchanged, with his consent, he releasing all conditional rights of reversion, for a large edifice in the suburbs, built for another purpose, but admirably adapted, by location and structure, for the residence of young people. It overlooks the harbor, is secure by its elevation from any interruption of light or air, and affords ample room for all who may desire to come.

The institution bears his name. That something important would have eventually been done in Massachusetts for the education of the blind, even if he had rendered no assistance, cannot be doubted. Dr. John D. Fisher, a physician of great worth, to whose memory a monument has been erected at Mt. Auburn, for his early exertions in the cause, moving almost unaided, had previously obtained an act of incorporation from the Legislature for the purpose; and Edward Brooks, Esq., and Mr. Prescott, the historian, with some other gentlemen, had united with him to promote it. What followed is in a great measure to be attributed to their preparatory movements. But Col. Perkins, by the impulse of a powerful hand, suddenly roused the community to aid in the project, and placed it at once in an advanced position, which otherwise it probably would have required the lapse of many years, with arduous exertions, to attain. At that time the institutions for the blind in England were little more than workshops, affording hardly any instruction except for manual labor, and no printing, though two small books had been printed in Scotland. But through his aid and advice the means were obtained and effectually applied for an establishment on a more liberal plan, giving the precedence to intellectual and moral education. There is little doubt, therefore, that a large portion of the good which has been effected thus far, within the institution, and by its example elsewhere, is the result of his munificent donation, and the wise condition which he attached to it.

It should be remarked here, however, to guard against any mistake detrimental to the interest of the blind, that while the pupils are placed, through his means, in a building which might give the impression that its inhabitants are likely to be in want of nothing, the institution is by no means richly endowed. The money that has been liberally given has been liberally spent in the cause of education; and those who are inclined to give or leave any portion of their wealth for the relief of misfortune, should be informed that the blind still need, and humbly hope to be remembered. There can hardly be any class of persons to whom books, and a large library of books, can afford so great a delight as those whose sources of enjoyment do not include that of sight; and, after reading in the report of the juries on the awards at the exhibition of the Crystal Palace in London, ten close pages, that are devoted to the subject of printing for the blind, with an historical sketch in which marked prominence has been given to what has been done at "THE PERKINS INSTITUTION IN BOSTON," it can hardly be heard without sorrow that the printing there is suspended for want of pecuniary means; and that the publication of the Cyclopedia in twenty volumes, probably the most valuable work, with the exception of the Bible, that has ever been attempted for the blind, was necessarily stopped with the eighth volume.

After his retirement from commerce, in 1838, Col. Perkins found sufficient occupation in the management of his property; in various matters of a public nature which interested him; and in the cultivation of trees, and particularly of fruits and flowers, on his estate at Brookline. He was remarkable for his love of nature; and in travelling sometimes went far out of his way to examine a beautiful tree, or to enjoy an interesting view. Occasionally he made a voyage to Europe, renewing his observations on the changes and improvements that were to be seen there. He had crossed the Atlantic many times, always keeping a diary, which he filled with the incidents that occurred, with the results of his inquiries, and with remarks worthy of an intelligent traveller; and sending home works of art, some of which were bestowed as gifts. He took a lively interest in the progress and welfare of American artists, kindly aiding some who desired to improve by studying the great models in Europe, and liberally purchasing the works of those who deserved encouragement. He was generally very agreeable to those with whom he fell in as fellow-travellers; and where he became known abroad as an American, he left a very favorable impression of the character of his countrymen.

Active industry had been and continued to be the habit of his life. The day with him was well occupied, and equally well ordered. He had long been accustomed to rise early, to consider what required his attention, and to prepare so much of what he had to do personally as he could perform by himself, that he might meet the world ready to decide and direct promptly and clearly. This enabled him to transact business with ease and accuracy, and made him so far master of his time that he found leisure for various objects, both of usefulness and enjoyment, as well as for courteous and kind attention to the affairs and wishes of others, which it might have been supposed would hardly be remembered by one so occupied. Each day with him was the illustration of a thought which young men, and particularly young men entering on commercial life, will find to be a safeguard against precipitation or perplexity, and against the irritation as well as the miserable shifts to which they sometimes lead. The action of the mind in preparing with calm foresight what is to be done, before it is absolutely necessary, is widely different from its action when affairs are left until necessity presses, and the powers are confused by various calls on the attention in the midst of hurry and embarrassment. What is only method in the first case actually becomes a faculty, and sometimes passes for uncommon ability, of which it has the effect. On the other hand, some men, who really show great powers when pressed by necessity for despatch, are in truth unable, without being aware of such a defect, to foresee and prepare what they have to do before they feel the pressure. When that ceases, the exertion too often ceases with it; and important matters are left to be done at some future time, which perhaps are never done. The older they grow the more incurable is the evil, and melancholy instances might be given of bankruptcy late in life, after great success, which might be traced chiefly to this cause. It is said that the Hon. Peter C. Brooks, of Boston, who left a large fortune, after a life well worthy of imitation, on being once asked what rule he would recommend to a young man as most likely to ensure success, answered, "Let him mind his business;" and to a similar inquiry, it has been said that Robert Lenox, Esq., of New York, well remembered as one of the most distinguished and estimable merchants ever known in that great city, and for his wide hospitality, once answered, "Let him be beforehand with his business."

Numerous instances might be given of his kindness in promoting the success of others, and particularly of young men engaging in voyages or other commercial enterprises; and he always showed a warm interest in the Mercantile Library Association of Young Men, to which he made a donation to aid in the erection of a building.

After the decease of Mrs. Perkins, some important business in which he was concerned required attention at Washington, and his courageous spirit still rising above the infirmities of age, he made one more journey there, resolved to see to it himself. While there he was concerned to find that work was likely to be suspended on the monument to the memory of Washington. On his return home, he took measures to rouse fresh interest in the work, and a considerable sum was raised for it through his exertions.

In the last year of his life, he gave one more remarkable proof of his continued interest in what was going on about him, and of his readiness to aid liberally in all that he deemed important to public welfare and intelligence. A large and costly building had been erected for the Boston Athenæum by contribution from the public, liberally made for that purpose. A fund of $120,000 was now to be provided for annual expenses and for regular additions to the library. As Col. Perkins had already done a great deal for the Athenæum, no application was made to him for further aid. He, however, voluntarily asked for the book containing the largest class of subscriptions, and added his name to those contributing three thousand dollars each. Soon afterward he inquired of the president of the Athenæum what progress had been made, and was told that the subscriptions amounted to eighty thousand dollars, all of them being, however, on the condition that the full sum should be made up within the year; and that everything possible seemed to have been done. He then gave his assurance that the attempt should not be suffered to fail, even for so large a deficit as that. Further assistance from him, however, was rendered unnecessary, chiefly by the noble bequest of Samuel Appleton, Esq., a man of liberality and benevolence like his own, who died during the summer, leaving the sum of two hundred thousand dollars to trustees, to be distributed at their discretion for scientific, literary, religious, or charitable purposes. The trustees appropriated twenty-five thousand dollars for this fund, and the remaining sum of fifteen thousand dollars was easily obtained by further subscriptions at large.

On the 9th of January, 1854, he found it necessary to submit to a slight surgical operation, which was successfully performed, and there was every indication that his health and life would be still further prolonged. But his race, already protracted, was run, and, becoming more and more feeble through the 10th, he fell into a state of unconsciousness toward evening, in which he continued for some hours, when he died tranquilly, early on the morning of the 11th of January, in the 90th year of his age.

The funeral service took place at the church of the Rev. Dr. Gannett, where he had long worshipped, and was marked by one incident peculiarly touching in its association. The solemn music, usual on such occasions, was impressively performed by a large choir of pupils from the Perkins' Institution for the Blind, who had requested permission to sing the requiem for that friend through whom they enjoy the comforts of their spacious dwelling.

The impression of his character left on the community was such as had been sketched, a short time before, in language that admits of no improvement, and needs no addition, by the Hon. Daniel Webster, in a note written with his own hand on the blank leaf of a copy of his works, presented to Col. Perkins:

"WASHINGTON, April 19, 1852.

"MY DEAR SIR:—If I possessed anything which I might suppose likely to be more acceptable to you, as a proof of my esteem, than these volumes, I should have sent it in their stead. But I do not; and therefore ask your acceptance of a copy of this edition of my speeches. I have long cherished, my dear sir, a profound, warm, affectionate, and, I may say, a filial regard for your person and character. I have looked upon you as one born to do good, and who has fulfilled his mission; as a man, without spot or blemish; as a merchant, known and honored over the whole world; a most liberal supporter and promoter of science and the arts; always kind to scholars and literary men, and greatly beloved by them all; friendly to all the institutions of Religion, Morality, and Education; and an unwavering and determined supporter of the Constitution of the country, and of those great principles of Civil Liberty, which it is so well calculated to uphold and advance. These sentiments I inscribe here in accordance with my best judgment, and out of the fulness of my heart; and I wish here to record, also, my deep sense of the many personal obligations under which you have placed me in the course of our long acquaintance.

"Your ever faithful friend, DANIEL WEBSTER.

"To the Hon. THOS. H. PERKINS."

The three institutions named in the course of the preceding memoir, as having participated more largely than other objects in the pecuniary contributions and personal efforts of Col. Perkins, are among the noblest charities and educational agencies of our age; and their rapid growth from small beginnings up to their present flourishing conditions, is highly creditable to the wise liberality of the citizens of Boston.

The Massachusetts General Hospital, with its establishment for the sick and maimed, in Boston, and its asylum for the insane, at Somerville, originated in an appeal, by Drs. James Jackson and John C. Warren, in favor of these classes, in 1810, and which has been responded to by a liberal public, until the amount of subscriptions, donations, and bequests, [including grants and privileges extended by the legislature, representing the capital sum of $150,000,] had reached $1,255,000 in 1851. Of this sum $500,000 are invested in the buildings and estate appropriated to the uses of the hospital and asylum. Up to 1851, 3,341 patients had been admitted to the asylum, of whom 1,538 had been restored to their friends, clothed in their right mind; and a still larger number improved in their health and condition. Of the 13,549 sufferers received at the hospital, comforted and cared for, 4,000 were discharged well, and 6,000 more greatly relieved and permanently benefited.

The Boston Athenæum owes its origin to a society of gentlemen who conducted a literary publication called the "Monthly Anthology." It was called the "Anthology Society," and was formed in 1805 to continue the publication of a monthly periodical commenced by Mr. Phineas Adams, in 1804. In less than a month after the regular organization of the society, it was voted, (Oct. 23, 1805,) to establish a library of periodical publications, and in 1806, (May 2,) a public reading room, open to subscribers by paying $10, annually. In 1807, the gentlemen who commenced the undertaking, transferred their rights, in the Anthology Reading Room and Library, to trustees, who, in 1807, were incorporated under the name of the Boston Athenæum. In 1807, the sum of $42,000 was raised by voluntary subscription for shares, at $300 per share. In 1821, James Perkins gave his costly mansion, in Pearl street, which was occupied for the uses of the institution till 1849, when it was sold for the sum of $45,000 and the avails applied toward the erection of an elegant, spacious, and convenient building in Beacon street. In 1826, Thomas Handasyd Perkins gave $8,000, and his nephew $8,000 more. In 1846, John Bromfield gave $25,000, and the trustees of Nathan Appleton's estate, the further sum of $25,000. From the trial balance of the Treasurer, dated Dec. 31, 1855, it appears that the gross sum of $491,255 have been received for the use of the institution, of which $86,000 have been expended in books, and $69,871 in paintings and statuary, and $197,438, in the building, (with the site,) occupied by the Athenæum. The Athenæum has been the parent of many similar institutions in other parts of the country.

The Perkins Institution and Massachusetts Asylum for the Blind, originated with Dr. J. D. Fisher, who called the attention of the people of Boston, to the neglected condition of the blind, in 1828; but nothing effectual was accomplished until Dr. Samuel G. Howe, in 1832, undertook the organization of a society, and commenced the experiment of educating six blind children. In an exhibition of the proficiency of this class, Col. Perkins became deeply interested and made the munificent donation of his mansion house in Pearl street, on condition that the sum of $50,000 should be contributed by the public, as a fund to aid in their support. From that moment the enterprise was placed on a stable foundation, and care for the blind, as a class, all over the country, was lifted into the circle of public duty and private beneficence.

To have aided materially in establishing and promoting these charities and educational agencies, entitles Col. Perkins to the grateful regard of all men. Well might Abbot Lawrence say, when closing a public meeting of the merchants of Boston, held immediately after his decease—that if ever a man deserved to have it written on his tombstone that the world was better for his having lived in it, "that man was Col. Thomas H. Perkins."

XI. LETTERS TO A YOUNG TEACHER.

BY GIDEON F. THAYER,

Late Principal of Chauncy Hall School, Boston.

Having, in my opening letter, very briefly touched upon the general subject of school-keeping, I propose now to indicate more particularly what steps are to be taken to secure success in the objects at which you will aim. And, in my view, self-examination, self-discipline, self-government, self-renunciation, to a great extent, comprise the most obvious and certain means at your command. These will do more to promote the successful management of your school, than any set of rules, however well conceived or rigidly enforced.

To ascertain and explore the springs of action in one's own mind, is to obtain possession of the key that will unlock the minds of others; than which nothing is more important in the business you have undertaken; and nothing will give more effectual control over those intrusted to your care. And, as this is a leading object with the teacher, and one on which his usefulness mainly depends, it should be, first of all, secured. There are ten persons who fail in school-government, to one who fails in mere instruction. The extent of classical and scientific preparation is of little moment, where the capacity for government is deficient.

Self-examination, if faithfully carried out, will unfold to you natural biases and motives, of which you may now be wholly unaware. You may have been drifting forward on the stream of life, like a deserted ship on the bosom of a mighty river, heedless of your course, and trusting that the right haven would be found at last, without any special agency on your part to avoid the shoals and whirlpools, the obstructions and rocks, that lie exposed or hidden before you. You feel no "compunctious visitings" at this state of things; for you have never been roused to their contemplation. Your attention has never been called to an investigation of those ruling influences which, unknown to yourself, have hitherto led you onward in time's pathway.

You have felt no responsibility, for you have acted for yourself alone; and being, as you supposed, an exemplar or model to no other, have made no effort to alter your course.

The case is now wholly changed. What you are in motive, principle, habit, manners, will the pupils under your charge, to a greater or less degree, become. There may be points exhibited by you before your school, which in *word* you steadily condemn; but powerless and ineffective will be that precept which your example opposes with its living force. Hence the necessity of this personal inspection. "Know thyself" was the injunction of an ancient philosopher; and it has been reiterated by many among the wise of modern days.

Most of those traits which make up what we call character in a man, are the results of education as developed not only by the processes of school instruction, but by whatever passes before the eye, whatever sounds upon the ear, excites the imagination, warms the heart, or moves the various passions within us; and the more frequently the mind falls under the same set of influences, the greater the probability that the character will take a stamp conformably to such influences. Hence we perceive, although with some exceptions, a marked similarity in individuals of the same parentage. But there are traits inherent in the human constitution, and widely differing from each other, as strongly marked as the instincts of animals, which lead one species to seek the air, and another the water, without any teaching whatever.

The man of nervous temperament will exhibit conduct conformable to it; the phlegmatic, to it. The acquisitive tendency produces the avaricious man; the taciturn, the silent man. Although the operations of these original elements in our species can, perhaps, never be entirely reversed, they may, under faithful training, be so qualified as to make them subserve the cause of duty and humanity; for we are never to admit that the great Creator made anything but for the promotion of the ultimate well-being of his creatures. As, on the completion of his six days' work, he saw that "it was very good," we are bound to believe that every element in man's nature, whether physical, moral, social, or intellectual, was intended to become the instrument of good in some department of the great system of things, however perversion or excessive indulgence may sometimes produce the very opposite effects. To say otherwise, would be like asserting that light is no blessing, because it may dazzle or blind the eye; or that fire is a curse, because it sometimes consumes our dwellings or destroys our treasures; or that water is our foe, because it may drown us.

It being established, then, that ours is a complex nature, and that, without an adequate knowledge of it, as existing in ourselves individually, we cannot do all in our sphere, of which we are capable, for the benefit of our fellow-beings, the acquisition of this knowledge becomes our first duty; and, especially, when we put ourselves in a position to stamp an image of our spiritual selves upon those who are committed to our influence and our training.

Our first care, then, in this business of self-inspection, is to ascertain whether we have any tendencies or proclivities that militate with our highest idea of a perfect man; whether our motives are lofty, our affections holy, our principles upright, our feelings and tastes pure, our intentions unselfish, our habits such as they should be. Every one has a beau ideal in his own mind; and, if we fall below it in any of these particulars, we are to set about bringing ourselves up to the standard we have assumed.

In this great work we shall need aid beyond ourselves. In fact, self-love will be continually blinding us, or leading us astray from a strict and righteous judgment; and, to enable us to be just, we must as constantly seek for aid where only it is to be found.

Having, then, ascertained the defects in our character, our next step is to impose that self-discipline which reformation requires. It may be difficult,—it doubtless will be; but the result will be worth more than its cost. The work must be commenced in strong faith, with an unyielding will; and a resolute perseverance will achieve the victory.

Have you doubts as to how you shall begin upon the new course? Phrenology teaches that every organ has one antagonistic to it; and that by exercising it, and suffering its opposite to lie dormant, the former will enlarge, and the latter shrivel for want of exercise. Take a hint from this. Have you discovered that your motives centre in self? Seek every opportunity for benefiting others, even at some personal sacrifice. Have you found yourself indulging in any passion? Cultivate a feeling of gentleness and forbearance. Put yourself in the way of meeting provocation, that you may learn, by practical experience, to resist the temptation to the evil. Have you detected a love of ease, or of inaction, or indolence? Nerve yourself to a vigorous attack upon the propensity or *habit*, if it has already become such, assured that, if continued, it will prove fatal to every noble purpose. Have you accustomed yourself to speak ill of others, or encouraged slander or gossip in your associates? Resolve to check it where you can, whether in the domestic circle, or abroad among strangers; and resolve, as a *general* rule, to be silent where you cannot commend. If others are unjust to you, be forgiving and generous to them. If the cost or inconvenience be great, the discipline will be all the better and more useful. It is by such trials that the character is to be improved and perfected. It was not sleeping on beds of down that prepared the men of '76 to endure the unutterable hardships of those days; but a long and severe training in the rigorous school of adversity and self-denial. It is the wielding of the heavy sledge that imparts vigor to the arm of the smith; while the same brawny limb, confined in a sling, would soon wither into imbecility.

Thus, then, are you to treat propensities and habits, and every sin or defect, which you find besetting you or opposing your progress towards the standard you have set up for your own attainment.

A discipline like this terminates at last in that self-conquest so important in every situation of life, and is of unspeakable advantage to him who is the guide of the young in the beginning of their career.

The importance of self-government has been proverbial from the days of Solomon. It enables its possessor to make the best use of his powers under any circumstances that may arise. It decides the contest between two individuals, in other respects equal, declaring for him "who ruleth his own spirit." Nay, it comes, in lieu of intellectual power, in the dispute, and secures the victory to him who is in other respects the weaker man. It is highly useful in every sphere; and, in that of the teacher, is in requisition every hour of every day.

The last of these elements of preparation is self-renunciation, or self-sacrifice, a state of mind the most difficult to reach, and yet the noblest of all; for it was the leading characteristic in the Great Teacher—the purest, safest model for every other teacher.

You will, very naturally, in the outset of your pedagogical course, feel jealous of your authority and dignity, and require a deference and respect from your pupils, which, if withheld or rendered tardily, you may be disposed to resent or make the occasion of severe discipline to the offender. It is fitting that this point should not be neglected; but be not hasty to act or to adopt extreme measures in such a case. Assure yourself first that disrespect was *intended.* The low state of manners at this day is notorious. In many families, of good standing in the world, it is a subject that scarcely comes within the cognizance, or, apparently, the thought of parents. The children are not trained to observe the courtesies of civilized society, but actually grow up like the untutored savage of our western wilds. If any refinement exists around them, they are somewhat affected by it; but they do and speak as others—leading individuals in the families—do. Hence, many a noble-spirited boy enters the school-room practically unconscious of the claims of the teacher to any token of respect from him, that had never been required around the hearth-stone of his own home. Consequently, his manner may be rough, his tones loud and coarse, his language ill-chosen, his carriage clownish, even on his first introduction to the teacher. Should such a one come under your observation, judge him not hastily; check him not harshly. There may lie within that repulsive exterior the best elements of our nature; and he may be wholly unconscious that he has infringed any of the laws of civility. Ascertain, therefore, the facts in the case, before you arraign him for his delinquency.

Every variety of temperament, too, may be found among your pupils. The merry, the daring, the timid, the artful; one, so overrunning with fun and frolic, that he commits many a breach of good manners quite involuntarily; another, easily excited by passion, answers rudely, under its impulse, when, in his sober judgment, he would stand self-condemned, although his pride might forbid his acknowledging his fault.

Cases will be continually occurring to test the principle of self-sacrifice within you; and well will it be for your own happiness, and better still for your pupils, if you shall have so firmly established it, as to enable you to endure from them, for a time, what you would, perhaps, be disposed, if coming from others, to consider an insult.

But do not misunderstand me. I would have your pupils behave with strict propriety; would have you enforce it as a rule. My object in these remarks is to guard against precipitate action; nay, to prepare you to carry the martyr-spirit into your government, when the welfare of the children shall require it. The mother sometimes comes to her knees before her offending child. The spirit that dictates such an act should move the teacher in cases demanding it. Cases so extreme would rarely occur in school; but when they do happen, he should be prepared to meet them in this *maternal* spirit.

When the first Napoleon had an object to gain, whether it was the carrying of a bridge, the taking of a city, or the subduing of a kingdom, difficulties did not daunt him, nor the cost in men or treasure cause him to waver in his purpose. The only question was, "how many men will it cost?" and they were detached for the service. With a similar determination, but for a far nobler end, the teacher is to ask himself, "what amount of labor, what degree of personal sacrifice, will it require of me to save this child?" The question being solved, the generous effort is, with Bonapartean promptness, to be commenced. The debasing passion is subdued; the repulsive habit reformed; the evil tendency put in check,—and the boy is redeemed!

Do you ask me if *this* is the preparation for keeping school? I answer, the course I have recommended comprises the initiatory steps. They are the most necessary ones of all; first, because they involve the highest good of a human being; and, secondly, because they come not within the scope of the examination of school committees, either at the time the teacher receives his certificate of competency to take charge of a school, or at the public examinations, when he appears before the people, to prove or disprove the accuracy of the committee's written opinion.

I am well aware of the check that this perversion of the relative value of things among School Committees, must have a tendency to impose on the ardor of a young teacher of high aims; and how great the danger to discouragement that he must have to encounter as he anticipates the non-appreciation of his acquirements in his school of self-discipline, among those who are to be his publicly constituted legal advisers or directors. Still, I cannot consent that he should lower his standard. If he adopts the teacher's vocation as a permanent one, these things will be needful to his complete success; and he should be ambitious, for the benefit he may confer on his pupils, as well as for his own fame, to leave such marks of his training and careful instruction on their feelings, habits, and principles, as will show to the good and wise that he measured his duty in the schoolroom by a standard more lofty, more grand, than that which is satisfied with a moderate acquaintance with grammar, geography, and arithmetic. These in their order. I would not derogate an iota from their true value; but I would have, without any compromise whatever, those things take the first place, on which the character, integrity, moral worth, and that happiness which springs from pure fountains, and which is alone worth striving for, depend.

The teacher who conscientiously believes this, and has made a faithful effort to fit himself to carry out the views presented in this letter, is worthy to mould the rising race,—to fit the embryo men to become voters under a free government, to become legislators capable of making wise laws, and upright magistrates to execute them.

Such teachers the republic emphatically needs. Such must be had, if we would perpetuate the glorious institutions of our Heaven-favored country. Prosperity in commerce, in wealth, in power, in fame, in population, is of little value, if there be not a foundation in something more substantial—more enduring; if, in short, public and private virtue be not the grand basis—" the stability of our land."

The foundation of all practical education must be in the department of morals; and this should be insisted on by all supervisors of schools throughout the land. Teachers should be examined in this as " the principal thing; " and, if found deficient, whatever their attainments in science, should be rejected. It is full time that some practical use should be made of the doctrine assented to by all, that the moral and social nature should be educated; and this can be best secured by engaging the services of persons who have made it a matter of particular attention.

ERRATA. — In the Introductory Letter, p. 358, ninth line from the top, "indissolutely" for *indissolubly*; next paragraph, "tyrant's" for *tyrant*.

XII. MENTAL EDUCATION OF WOMAN.

BY CATHARINE MCKEEN, MOUNT HOLYOKE SEMINARY.

Beautiful and exquisite things have been spoken for woman's ear; boquets of flowery adulation lie pressed between crimson and gilded lids, on every parlor table. True and Christian sentiments have also been amassed upon this honored theme. Have not all the combinations of words, and varieties of thought, on the subject of Female Education, been quite exhausted? Nay, *truths*, permanent and changeless, afford a limitless variety of views to different minds, as does the light from the same sun to different eyes; and human *faces* are not as distinctive as are the *souls* which give them expression. But the useful of *to-day*, may have no need to differ from the useful of *yesterday*; the world is ever passing through a series of repetitions; the same sun that shone upon the glistening tents of Abraham, the same stars that watched above the shepherds of Bethlehem, have ever since been moving through their daily courses. Generation after generation passes on and off the stage of life, through a common route of wants and experiences. There must be a constantly renewed application of motive and nourishment to the physical and psychical man. The mind that has once imbibed truth or incitement, may require it none the less again, neither will it feed alone on dried or preserved fruits, but craves the juiciness and freshness of the newly plucked, even though but scarcely ripe. It is the latest style, the just imported, the to-days' paper that are most eagerly called for, even though the old were better, or the same. The world is begirdled with labels of *New*, which reappearing in its revolution, dupe the restless expectant. Thus the *old renewed*, is ever attracting the listless attention. Valuable and comprehensive as are the teachings of the dead, it cannot be doubted that the living multitudes are chiefly swayed by their living associates, and are influenced more by the repeated than the remembered truths. Then whoso has a thought to utter, is not to suppress it, because the like has been spoken before. It is thought on the *wing*, as it were, that attract the observer's eye, and it is the earnestness of the outsending spirit that gives it force, it is the arrow shot at the *mark* that does execution, not the random throws, or the residue in the quiver; and so a word that comes with the impulse of strong desire, and urgent feeling to a certain aim, accomplishes more than many generalities or reserved powers. Then let the earnest conviction of the importance of the subject and of its high claims to repeated consideration, be a sufficient apology for the appearance of another treatise on the object and means of Woman's Mental Education. There is manifestly a continuous progress in public opinion, in regard to the propriety of affording to woman, educational opportunities, but these increasing efforts lack a fixed aim; these enlarging views want system. Both parents and their daughters, in determining the kind and degree of intellectual discipline desirable for the young lady, are controlled more generally by custom than principle. Without a common and distinct object there can be among educators of youth, no unity of plan or appropriateness of means. What result might be expected from the agriculturist who should sow and plant at hap-hazard, with the desire of cultivating the earth, but with no specific harvest in view, or knowledge of the proper means for obtaining one; or from a mechanist who should take into his hands a set of tools, and proceed to use them, without deciding upon any particular piece of furniture to be manufactured? Successful effort must have its appropriate *object*, and especially is this true in the sphere of intellectual action. It were acknowledged folly to experiment blindly with the *mortal* life, or make fashion the only umpire on the treatment of the *body*, but madness it is to trifle with the *immortal* part. In all the pursuits of this hurrying world, is there another object so momentous as the direction of human spirits? Seriously, is it so? Then let us give earnest heed, and look carefully here, for if we err in the *foundation truth*, vain is the superstructure. We conceive the ultimate object in the education of a rational being, to be wholly independent of distinction of *sex*, or any occupation or circumstances in life: all these must essentially modify the means, but the end is invariable, fixed to the throne of God. But let us look back to the beginning of being, before we trace its course. In the beginning God created the Heavens and the earth. This great earth, whose summits surpass our reach, whose depths underlie our soundings; which is wonderful above finite comprehension, though *good* in the sight of its Author, was not in His image. It came from the Creative hand, bearing the impress of that spiritual type to which its manifestations correspond; it was the material symbol or index to the attributes of Deity; by displays of power and skill, pointing to Omnipotence, Omniscience; giving by form and color, *emblems* of ideal beauty, and by harmonious sounds, echoes from the perfect harmony of God. All was characteristic of its Author, yet not in His image; as the book resembles not its writer, or the temple its builder; but *man* was born of God, not as a symbol, but a living spirit; not merely to display the wisdom of the *Creator*, but to *be wise*; not as a *work*, but a *worker;* not simply the *expression* of thought, but a *thinker ;* not as the *effect* of moral perfection, but with capability of *being* morally perfect. Man was in the *image* of God, and the living spirit breathed from the divine breath, was life, with no power of ceasing to be. All the faculties of the human soul were reflected from the attributes of Deity, but these human tastes and faculties, could find their true objects and vital nourishment, only in that which is suited to their nature, the one source; and as the created, the finite, might not comprehend the Self-existent, the Infinite, types and symbols of the spiritual, were granted in *matter*, mysteries inviting solution, the material for the exercise of the beginning powers; and as a medium of communication between mind and the natural world, was formed the human *body*. Thus the spirit through all its channels was to be led to its source; finding no rest, no ultimate object save in the perfect Whole; and the mind advancing on *any track of truth*, will find it leading to the endless Deity. This is not a vain speculation, an outside theory which we have been contemplating, but the foundation of all practical rules, the centre from which emanates light upon the whole circle of human relations. Are not these truths great and glorious? yet may they not be reflected in a dew-drop as it were, in the most simple maxims, wherein a wayfaring man need not err?

Since God is the Author and true aim of every faculty of our being, there can be no state or act of that being disconnected with obligation to Him; and as by the Laws of our Constitution, every faculty is strengthened by proper exercise, and the object of its exercise is infinite, it can never have glorified God to its fullest capacity. There is no *limit*, for the seeming limit of the present, is constantly receding to find the boundary of the boundless eternity. Have we come in our search to a foundation truth? Then even at the risk of tediousness let us linger and look at it again, for every pillar in this little fabric of thought, must rest upon it. We have not considered as the *basis*, what should be the object in the education of *woman*, in distinction from man; of this or that class in society; of the American, the Asiatic, or the African; but of a *human soul.* And now we will notice the application of these principles, to a few divisions of our subject, for it spreads into so many branches, that we can by no means follow out each to its ultimate buds of thought, or gather all the fruit from the larger limbs.

First, why and to what extent should woman be mentally educated? The Lord is a God of knowledge. His understanding is infinite. He knows Himself and all the works of His hands. Nothing which exists in spirit or matter, nothing that space contains or duration bounds, can be unknown to the Infinite One. This attribute in the Maker gave to His image the corresponding desire and capability of knowing, and placed mysteries all about him, problems inviting solution;—veins of connection lying through every department of creation, alluring the mind to follow their rich lines onward, till the mine is found which gave them rise. But the incitements to thought were by no means all in the outer world. The soul is a mystery to itself, and the body to which it is wedded is another *unknown*. the past and future; what depth untried! And more than all, bounding all height, depth, length and breadth, is the mystery of Godliness. Thus was inquiring thought to be called into action; and by nature, Scripture, and inward teaching, to be directed through every path of truth, up to the Infinite Mind. Where then is the limit of progress? When shall the intellect say, "it is enough?" When shall it stay in its course satisfied with the glory it has given to God, in the expansion of the powers He created for immortality? When shall it be satiated with draughts from the everlasting fountain of truth? Is it enough that a woman may provide for the wants of the body, and care for that which perisheth with the using? Enough that she maintain a fashionable position in society, and learn her pretty arts of transient amusement? Away with such narrow bounds for one a little lower than the angels; meet were such reasoning for the worms that crawl in dust. So long as woman claims a "living spirit," no mortal has a right to fix a limit to her intellectual progress, nor may she consider her education *finished*, until she receives a diploma from the great Teacher to whom she is responsible. We might argue the importance of woman's mental cultivation from its relation to her happiness and usefulness, its powerful bearing upon all the interests of mankind, but rather would we search the matter down to its fundamental basis, and overreach inferior aims for the ultimate. The deficiency of means for female education and the lowness of its standard have resulted from an error here. The quantity of mental cultivation has been weighed out in the balance of worldly prudence.

Convenience, Custom, Taste, have been allowed to decide what was to be done with the *mind*, and to "bring it up" at their pleasure. Religion and rational philosophy have been thrust aside as intrusive advisers. This, we apprehend is the fatal mistake, and we would have the truth fully and clearly presented to every understanding, that the human soul in *intellect* as well as *affections* is to be educated for *God*, and in view of eternity.

The degree of woman's cultivation ought then to be measured only by the *extent of her capabilities.* It is often asserted that learning and strength of mind render her homely duties distasteful, and in order that woman may keep the place, and do the work for which she was intended, she must have her inner eyes put out, lest she discover her position. A blind and lame argument truly! There is no clashing of purposes with the clear seeing One who created woman, and appointed her earthly sphere. By Him was no work assigned to any member of his great family which must degrade the worker, and thwart his highest good. It is only by the light of religion that we discover the true dignity and influence of every needful service. Man has made artificial wants, and laid heavy burdens upon the ministers of his pleasure; but whatever is really conducive to the health, happiness and good of the family circle, is worthy of the care and effort of an *angel* even. How can a well balanced judgment, clear perception, correct taste and practical imagination, make one less competent to perform the duties of a seamstress, nursery maid, or cook? Let the mind be sufficiently expanded to see the relations of all life's duties, as they lie in His mind whose thoughts are not as our thoughts, and it will put nobility on the office of the hands and the feet, instead of saying, "I have no need of you."

The muscles do not move without the mind's impulses, nor these without the heart: it is the inward state which either honors or dishonors the labor and the laborer. The stigma that has fallen upon literary ladies, has arisen in part from a one-sided, imperfect education. Often when the mind has been opened to the attractions of Science and Esthetics, it has yielded to the delightful impulse, and gone forth to its partial gleanings, forgetting that all the wants of human nature could not thus be satisfied. Such persons have taken false and limited views of the object of life. They have contemned and thrown into disrepute, the humble offices of feeding and clothing the body, of dealing with every day realities. Alas! they have forgotten that God thought it not beneath His honor, not only to order *bodies* which might be fitting receptacles for His *souls*, but that He Himself entered into all the minutiæ of tissue and formation. He not only purposed that the earth should be clad in becoming vesture, but Himself designed the pattern, and determined the shade of the leaf for every tree or plant in the universe. Take up a shell and trace the beautifully winding lines, the polished curves and exquisitely blending tints;—take another and another. Oh the endless variety of form and color! Multiply these by the species of plants and animals. We have entered upon an infinite illustration, and must retrace our steps to the beginning, for there is no end. Is it possible that a Great intellect could have been employed about things too small for the human eye even to see,—that it could have provided what every living thing should eat, and where it should live? Shameful and profane is it for mortal man or woman to despise what a *God* has honored. It is a mistaken and pernicious opinion that true education of the whole being can render woman *less* fit for any duty whatever that may devolve upon her. It is true, she will not be content to expend all her time and energies on the things which perish with the using; but she will strive to modify the foolish customs of society; to bring the exorbitant demands of fashion within the realm of reason, and to give to all the claims upon her, their due proportion of regard.

A miserly life of mere self-improvement is a degraded aim; and, enlightened benevolence will find its highest joy in communicating a healthful influence to all within its reach. It is in the orbit of *home* that the cultivated intellect must exert its chief power. There it must fix the standard of elevated thought and pursuit; and, with a well-balanced judgment and refined taste, quietly reign through every department. There is no danger here of disagreeable pedantry, of officious display of learning; for, what can make one more lowly in self-esteem than to get far enough out from shore to see the boundlessness of the ocean of truth, than to ascend high enough to take a view of the immensity of the fields of knowledge? It is objected that the business of life is with most ladies not of a literary character, and they cannot afford *time* to thought and study; therefore, their early acquisitions, however extensive, are useless. No true mental discipline can possibly be lost; and, it is especially important to woman that by her early training the love of knowledge and the habit of regulated thought may be so firmly rooted as to insure a luxurious growth, despite all obstacles. The mind that has felt the bewildering joy of the "race courses and gymnastics of the intellect,"—that has once tasted the sweet rewards which exploring thought brings home,—that has seen by the light of religion its relations to God and man,—will be *progressive*, whatever its occupation. The human spirit, the material world, the providences and perfections of Deity, are volumes that lie open to the most busy and most destitute. It is sad to see the mass of women wholly engrossed by things of inferior worth, narrowing down the mind to the degrading, laborious service of fashion.

There is opportunity for noble thought and action in every God-designed sphere of life. The great work of educating devolves chiefly upon woman; and, what qualifications are too high for this. We would that some truth-teller might ring in the ears of the community, so that it should vibrate beyond the auditory nerve, upon the understanding, *the truth*, that national character is dependent on the individuals which form it; and the individuals receive their style of being mainly from their mothers,—a class intrusted with the greatest and most momentous work ever committed to mortals. Yet, how many a mother can instruct her own children in even the elements of useful learning? Can, when her child at eventide sits in her lap, watching the round sun going down with his light, or the bright sparks that twinkle out in the broad sky, or the fair moon, gliding so silently among the light clouds, then fix the beginnings of thought, and gratify inquiry, by true stories of the greater and lesser lights? And, when that child goes forth to explore its little range of world, hushes at the winds' voices, plays with the soft, lifesome brook, plucks the bright flowers and folds them lovingly in his frock, marvels timidly at the horned beasts of the field, and springs to catch the singing bird that balances high on the leaf-twig; who can then present to his eager mind the truth which it craves, and foster with nicest care the choice sensibilities and emotions? And, as the child advances, can explain to him more and more the exhaustless *picture book* of *Nature*, exciting to a study which seems but play, in gathering kindred stones, and making family parties with the flowers, and visiting the bird and insect homes, to see their summer and winter houses, and what they do for a living? Is the mind often thus led to discover for itself the existence of *systems* in Nature, of variety bounded by uniformity, so that books shall afterwards be but craved aids in its farther researches? Are the unfolding faculties carefully studied, so that the training with delicate but steady hand may adjust their development in harmonious proportions? Is the mutual dependence of the soul and body intelligently regarded, so that neither shall be sacrificed to the other, but both be enabled to live together in accordant and helpful partnership? How many, skilled in the science of mind, and taught of God in His holy religion, are fitted to cultivate the conscience, plant the principles of right action, and guard against the approaches of evil influence? Who can believe that the educator of others has herself no need to be educated; and, that there is nothing in the office adapted to call forth and stimulate the energies of the mind? Most of the schools of our country are under the care of female teachers, especially those for this sex. It concerns us, therefore, to consider what the *school* is designed to effect, what are the leading defects of our ladies' schools, and how they may be remedied. We do not expect the teacher, or any limited period of time, to accomplish the whole work of education; that must go on through the soul's existence. But, the discipline of early years, must arouse the whole mind into healthful, harmonious action, open for it the great departments of knowledge in nature and mind, and develop enough of their system and attractions to awaken mental curiosity, and give it direction. Right habits of thought are also to be formed and confirmed, for the bud of character is being moulded which has only to unfold as it matures. The course of study and instruction in our schools should, therefore, be wisely fitted to secure this great end. But, have they generally been so?

It is evident that facilities are needed by ladies for more extended progress in the various branches of study. How many gentlemen would be willing to exchange schools with their sisters? Would give up to them the lectures, libraries, and apparatus of Cambridge, Yale, and kindred seats, and take, in return, the best advantages we have to offer? We would not intimate that precisely the *same* course is desirable for man and woman, or that one should assert a *right* to every privilege of the other. We have no occasion to discuss the question whether ladies require or are capable of the same degree of intellectual cultivation as the other sex, this is not to the purpose; we have already premised that every soul is accountable to the Creator for the use of its own powers, whatever they are, and it is indisputable that each *can* do what he *can.* What we desire, then, is the best instruction for us that can be obtained; libraries, too, such as would be of the highest advantage; also, the aids to scientific study, Astronomical, Chemical, Mineralogical, &c. Much, we gratefully acknowledge, is being done to forward the object we are pleading: schools are improving their character, and increasing their advantages; still, we have not reached our standard. No ladies' school in New England embraces as extended a course of study, or is furnished with as many facilities, as are many of its colleges and universities. Moreover, most of our richest opportunities are held out of poverty's reach, and not only is tuition disproportionately high, but the wages of those ladies who, by teaching, or other labor, would defray this expense, are disproportionately low. The daughters of the land may well cry, "give us money, that we may buy food for the mind." Among all the donations and bequests of the benevolent, how small a proportion is appropriated to the educational aid of woman. The various religious societies, the asylums and humane institutions, each have now and then a portion. It is *well;* we would not take from these. We read of liberal donations to this college and that university, nor ye would we covet; well pleased to see others enjoying their rich provision, we make our humble courtesy for the crumbs; but, now comes a large bequest from a *lady*. Surely, she will remember her people; but, no, every dollar goes over their heads to some far-away place, or to an already endowed professorship. Strange that the wise and benevolent have not long ago perceived that the surest way to elevate *mankind* is to give his mind a higher *source*, its principles and faculties a right foundation and direction in their formative state, and to incite it in its subsequent course, by sympathy and exalted companionship. But, though the gold is locked up never so tightly, and the philanthropist fails to see this worthy object of regard, still the earth is the Lord's, and the fullness thereof, and He will use it at His pleasure.

Secondly. If the means of instruction are to be extended, of course girls must remain longer at school; and, with the present system, there is frequently too much of hurrying. Many seem to regard, not the *study itself*, but the *terminus* as the *good*. It is their great aim to get *through* the course with all possible dispatch; no matter whether it embraces much or little, it is the diploma at the end towards which they are eagerly pressing. The nervous energies may be overtaxed by constant tension, and a restless goading may destroy the healthful buoyancy of youth; the mind may be enfeebled by cramming, and lose the power of digestion, no matter; this is the necessary wear and tear of the educational process. Much as we feel the need of instruction in the higher branches, this thoughtless haste in disposing of the means already enjoyed is a far greater evil. The parents and friends of the young ladies are frequently more at fault than themselves: they may, with difficulty, afford the pecuniary means to keep them long at school, and so are anxious to get much in little, or, with Yankee shrewdness, they look upon education as a thing to be obtained like gold,—the faster, the better. We would by no means speak severely of those ill-judging parents; for, their error springs from a lack of information as to the real good of the objects of their loving solicitude, and the complacency with which they remark that their daughter has graduated at a distinguished seminary, is often blind to the fact that that daughter would be far more respected by the truly educated, had she carefully *thought* her way through one third of its course. It is, in truth, oftener disgraceful than honorable to finish one's studies at an early age. It may not be desirable for a young lady to continue uninterrupted study for three or four years, especially in a boarding-school excluded from the ordinary connection with society, and governed by the rules of the little commonwealth; rather than testing her capabilities of governing herself in all the varying circumstances of life. We would, for the present propose, that to our high schools, should be added opportunities for one or two years of advanced study as a separate department which would be chiefly valued by those who had been out in the world a little, trying their powers, and been made to feel the need of a refurnishing for their work. Undue rapidity and superficiality are cotemporary. 3. Therefore, in this connection, we would speak of the importance of more thoroughness in study; not more acquaintance with the text-books so much, as more thought on the topics suggested by the books.

Let teachers and pupils remember that the first great lesson is, *How to study*, how to use the mysterious faculties within. As the mother delights to teach her child how to apply his soft, flexile fingers to holding his little cup, and to give him the joyful discovery of what his feet are good for, as he first tries them on the floor, so let the teacher cause the student to see and feel his own mental faculties, and try their strength till he becomes independent of the leading hand, and can go alone. Instruction has too often tended to cultivate chiefly the memory, instead of inciting to research, and leading the mind up, now and then, from the close, narrow view, to prospect heights, from which the different parts of the subject may be seen in their true proportions, uniting in a whole. We are tempted to dwell long on this topic, but must hasten to allude briefly to the class of studies claiming attention.

Probably the course of study generally adopted in our ladies' schools is well selected, and we will mention only those branches which are commonly neglected. Perhaps the natural sciences ought to take a more prominent place than they have usually occupied. If we view the natural world as a medium between us and the Creator, it becomes a matter of importance that what He has designed to communicate should be carefully heeded. The world of nature is always open to observation, so that woman, though gathering her vegetables for dinner, or filling the vases for her parlor, whether observing the operation of chemical or philosophical laws in her little world of sight and hearing, or scanning the shining firmament as, at the hush of evening, she stands at her window, or strolls into the summer garden, whether in her wild-wood mountain rambles, or more extended travels for sight-seeing, is ever surrounded with mental stimulus and instruction, and she who has the keys to the different departments of this world-museum may daily gather a new treasure. But, God is to be studied still more in his higher work, the human mind. History and other departments of literature, open to us their galleries for observation and instruction. Let History be studied philosophically; as we trace back the stream of events, let us pause to see what makes the fall here, the winding there, this rapid, or that stagnation. History is the tissue into which all other studies are woven,—the string for the necklace of literary pearls. But, in this department, we would include the near as well as the remote,—the succession of events left behind us by every day's progress in time. Let us not linger continually among the memorials of the dead Past: our hearts should beat in sympathy with the living Present. The great disparity between the *general information* of gentlemen and ladies, even among the lower classes, is doubtless owing to the difference in their newspaper reading. The school girl may be attracted by the worthless story, but is too often blind and deaf to all that is acting on the public stage. Political, scientific, or religious reports, from abroad or at home, are laid upon the table sine die: all these things are to be deferred till school days give place to leisure; but, alas, that prospective leisure is often still farther removed, and, if it is attained, the habit and taste for gleaning from the newly-reaped fields of Time, are wanting. Whatever *habit* is desirable in the summer or autumn of life, must be sowed in the spring.

The study of belles lettres, too, should share in every school course. Who have been the eminent writers in our own or other languages? What have they written, and wherein lay their power? What were the results of their intellectual work, and by what methods or styles did they reveal these results? What is the secret of the charm we feel, the control we confess? How have different minds regarded the same subject, each from its own stand point, and how would the reader regard it? Thus, the study of thought and the various ways of conveying it from one body-prisoned spirit to another, is the object we contemplate; and, the study of foreign languages has little value except as it lends assistance here. Of course, only a small fraction of the world's library would be comprised within school-study, but we repeat that a beginning must be made early of all right habits of mind. Ought not a good compendium of English literature to be introduced as a part of the course in all our ladies' schools? This properly studied, would be one of the most efficient means for cultivating in the student a nice literary taste and the ability for expressing her own thoughts; but, we would unite with reading, writing and conversation. Not that we would have ladies share in public oratory or ostentatious debate,—let them be struck dumb rather than use thus their powers of speech; but, thought is seldom clear and well-defined when there is no attempt to mark it off by words, nor ready at command, unless the mind is trained to quickness; then, again, of what use to others is our inner self, except as it appears to them? If ladies were disciplined in logical reasoning, in literary taste, and capable of communicating their own thoughts with ease, clearness, and elegant propriety, how immeasurably would their means of radiating light be increased. We have alluded thus cursorily to a few branches which receive less than their proportion of regard; but, of the whole spirit and manner of the teacher, of all that quickening, refining, elevating influence, which should surround and pervade the pupil's mind, the length of this article forbids us to speak, as also of the direct effect of *religious* truth and experience upon the intellect. Finally, ladies, we must *ourselves* be made to see the object of our existence, and feel our own *wants*. We have been too stupid in our ignorance, and our brothers have been too well satisfied to let us take our own way; but, when we unitedly and strongly present our petitions for the means of a higher education, they will gladly aid us with money and mind, and find, hereafter, in return, a *help* more *meet*. With high Christian purpose, let us strive to bring ourselves and our sex to that type of womanhood of which the Creator may say, "It is good."

XIII. PACKER COLLEGIATE INSTITUTE FOR GIRLS.

BROOKLYN, N. Y.

In the year 1844, a number of citizens of Brooklyn, New York, made a successful effort to found, upon a solid and permanent basis, an institution of high order, for the education of girls. The following extracts, from the articles of association, will sufficiently indicate the objects and plan of its formation.

1. The interest of this Institution shall be vested in the hands of a Board of Trustees, consisting of fifteen members, to be chosen out of the number of stockholders.

2. These Trustees shall be divided into three classes, one of which shall be chosen every year; so that each shall hold his place for three years.

3. The Trustees shall choose their own officers, and make their own by-laws, and should any vacancy occur, they may supply the same, until the next ensuing annual election.

4. It shall be the duty of the Trustees to submit to the stockholders, at the time of each annual election, a report of the state of the Institution and its finances, with an inventory of its property.

The Association was incorporated in 1845, and in the same year A. Crittenden, A. M., who had been for twenty years the efficient and successful Principal of the Albany Female Academy, assumed its charge. Two substantial brick buildings were erected—the main one, in which were all the school apartments, was about 75 feet by 100 feet and four stories high: the other, devoted to the accommodation of pupils from abroad, being about fifty feet square and of a similar height. These were completed and formally dedicated on the 4th day of May, 1846.

In relation to the situation and objects of the Institution, Rev Dr. Sprague, D. D., of Albany, who delivered an address on this occasion, made use of the following language:—

> If we were ignorant of the purpose for which this edifice has been erected, and were left to conjecture it from the beauty of its situation, the elegance of its structure, or the extent and variety of its accommodations, we should certainly conclude that it *ought* to be some purpose of great moment; for it would seem incongruous that both nature and art should thus be laid under contribution in honor of any thing that does not deserve to be honored. Nor should we have reason to be disappointed, when the secret came out that this building is to be devoted exclusively to the interests of education. No, there is nothing here, within or around—nothing in these extensive apartments or these convenient arrangements—nothing in the bright heavens arching this eminence—nothing in the surrounding ocean, now whitened with sails and teeming with life, and now receiving into its bosom the glorious sun—nothing in this spot so quiet that the weary spirit might well come hither to rest and breathe, while yet it is almost embosomed in one of the largest cities upon earth—I say there is nothing in all this but what is in admirable harmony with the purpose for which this building has been erected. May the commanding eminence which it occupies, lifting it towards the fountains of natural light, prove emblematical of its yet loftier intellectual and moral position, elevating it into communion with the fountain of all spiritual light and blessing!

To what extent these anticipations have been realized will appear from the following extracts. In their second annual report to the stockholders, the Trustees say,

> The enterprise can no longer be considered an experiment. The Academy, it is believed, is now firmly established; and the Trustees would congratulate the stockholders on the decided evidence of usefulness which the Institution has already furnished, and the promise which it gives of future and permanent benefit to our community.
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> We have now an Academy which will compare most favorably with any other Institution of a similar kind in the country. With an income sufficient to meet all its ordinary expenditures, and to pay off its debt within a reasonable period—with a corps of efficient and experienced Teachers, possessing high qualifications for their vocation—with ample accommodations of the best character, and every facility for furnishing an education of the highest order,—nothing is wanting to ensure the complete and permanent success of the Brooklyn Female Academy, but the continued good opinion and support of a liberal and enlightened community.
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> Great anxiety was felt by the Trustees, that unavoidable embarrassments would cause a long delay before the pupils and teachers could be put into right positions, so that the pupils could receive that quiet and orderly instruction, which the patrons of the Institution, notwithstanding all these impediments, would naturally expect.
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> But we have the unalloyed satisfaction of knowing that the work was done, and in good time; the most gratifying results have been achieved; a mild, efficient, and paternal government has been established and uniformly maintained.
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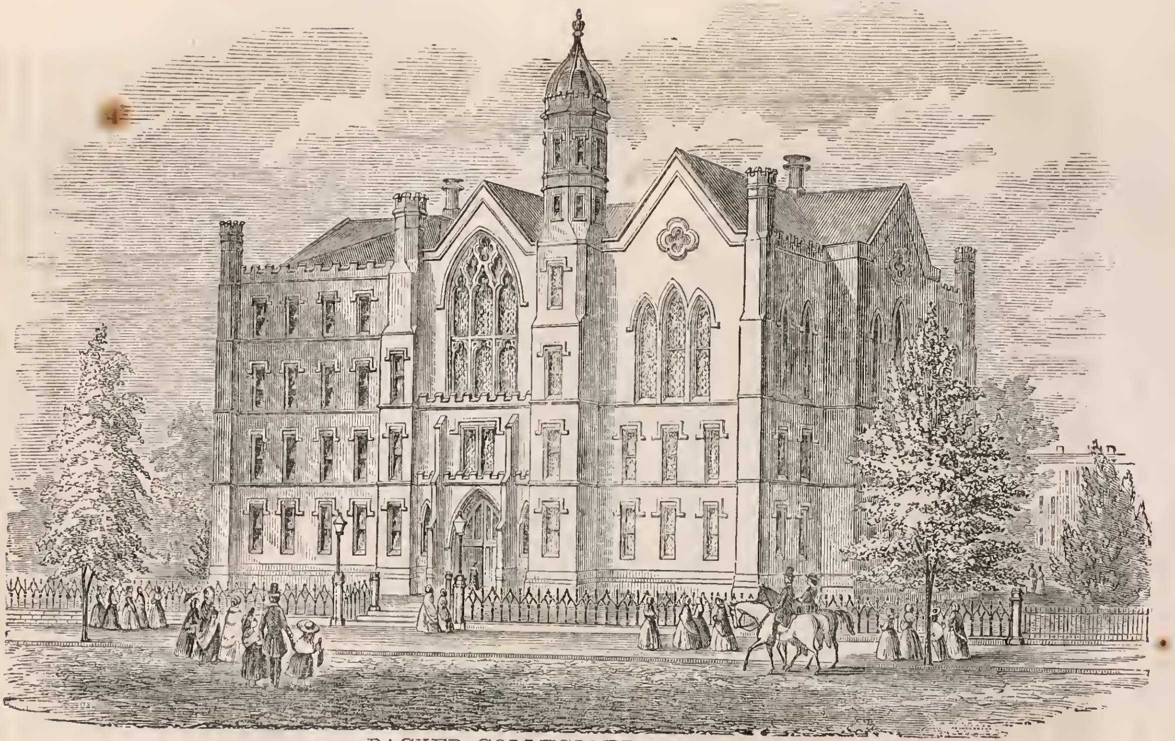
> The reputation of the Academy for good government, ample means, and thorough instruction, has been continually growing up, silently but surely gaining the confidence of the community, till its good name is known, not only throughout our land, but in distant countries.
>
> In proof of this statement, we are able to enumerate among the 1520 pupils who have sought the advantages of an education here, the representatives of 19 different States of our Union, the Canadas, St. Thomas, Trinidad, Cuba, Bermuda, the Sandwich Islands, and England.

The foregoing extracts sufficiently indicate the objects, progress, and success of this Institute, for the first five years. It continued to increase in favor until 1853, when its revenue, from tuition alone, amounted to $20,000 per annum, and its number of pupils to six hundred, in daily attendance. On the first morning of that year, the larger building with all its contents, including the large and well selected library, scientific apparatus and cabinets, was entirely destroyed by fire. But a calamity so sudden and disastrous even as this, did not interrupt the operations of the school for a single hour. Through the energy and promptness of the Principal, it was at once established in the neighboring rooms of the Brooklyn Institute, the use of which was tendered while the flames were yet raging.

Within three days after this disaster, Mrs. Harriet L. Packer, addressed a note to the Trustees of the Brooklyn Female Academy, in which she stated that her late husband, William S. Packer, had entertained the purpose of "devoting a sum toward the establishment of an Institution for the education of Youth. It was her desire, as his representative, to carry out his wishes." The recent destruction of the building of the Female Academy, by fire, offered her an opportunity which she was glad to embrace. "What I contemplate in this," she writes, "is to apply $65,000 of Mr. Packer's property, to the erection of an Institution for the education of my own sex in the higher branches of Literature, in lieu of that now known as the Brooklyn Female Academy."



PACKER COLLEGIATE INSTITUTE,

In answer to this proposition the Trustees resolved to dissolve the corporation of the Brooklyn Female Academy, and the consent of the corporators was obtained for the transfer of their interest to a school for boys, which is now in successful operation, under the title of the "Brooklyn Polytechnic Institute."

Application was made and granted for the incorporation of an Academy for girls, under the name of the PACKER COLLEGIATE INSTITUTE.

In a subsequent letter, after expressing her heartfelt thanks for the honor bestowed on the memory of her husband in giving the Institution his name, Mrs. Packer, to enable the Trustees to erect a building "with accommodations sufficiently ample to provide for the realization of our most sanguine hopes," "and in a style and general appearance which should be a token or pledge of the refined and elevated influences to be found within its walls," adds $20,000 to her former donation, making the whole sum $85,000.

Immediate measures were taken for the erection of such a building, and on the first of September, 1854, the edifice was completed and opened for the reception of its pupils, with appropriate ceremonies, and an address by Rev. Francis Vinton, D. D.

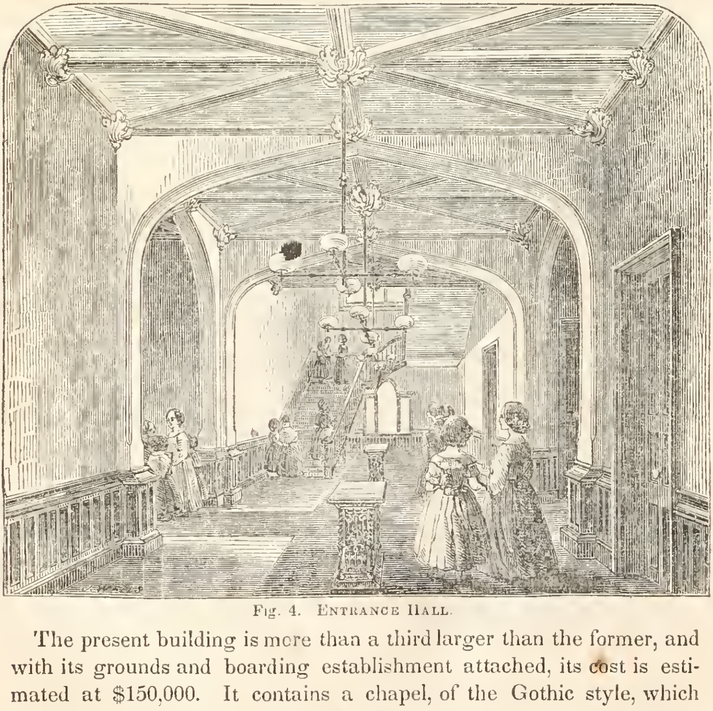


Fig. 4. ENTRANCE HALL.

The present building is more than a third larger than the former, and with its grounds and boarding establishment attached, its cost is estimated at $150,000. It contains a chapel, of the Gothic style, which will seat one thousand persons, where the pupils assemble daily for religious exercises, and weekly for the reading of composition.

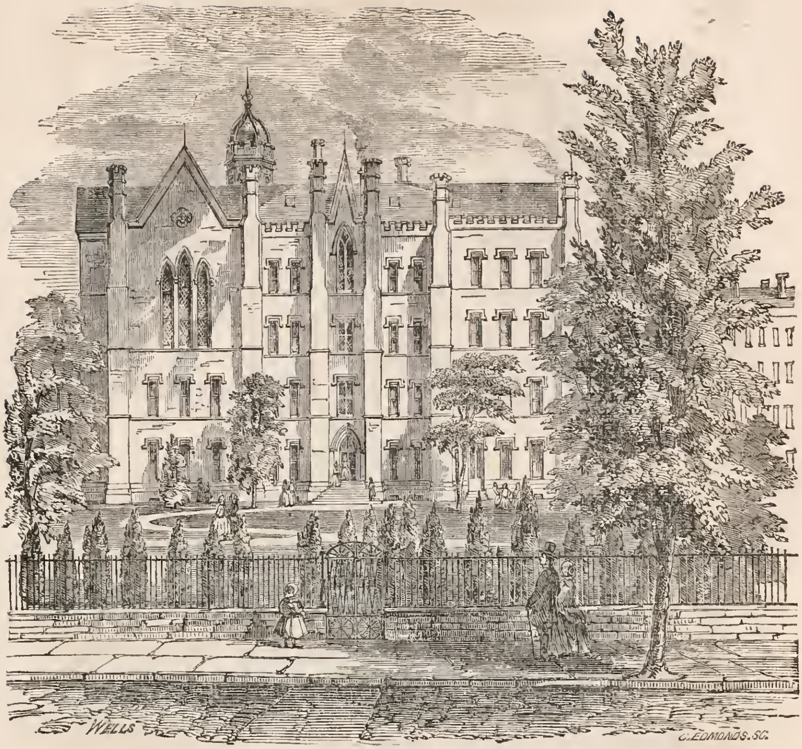


Fig. 2. Garden Front.

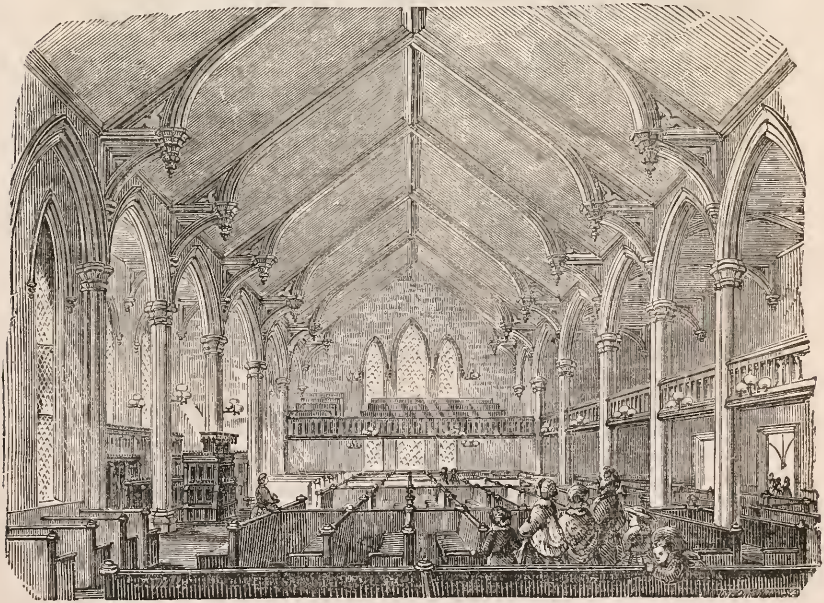


Fig. 3. Interior of Chapel.

Fig. 5. Basement.

a. a. a. a. a. Residence for a Professor.

b. b. Gymnasium.

c. c. c. Janitor's apartment.

e. e. e. Store-rooms and Work-shop.

d. Coal vault.

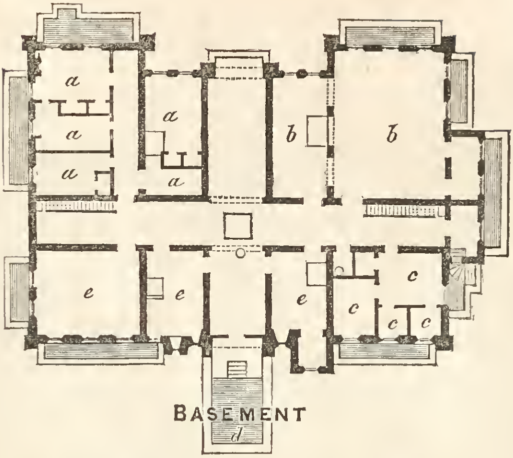


Fig. 6. First Floor.

a. a. a. a. Residence for a Professor.

A. Office.

B. B. Wardrobes.

C. C. School-rooms

D. Reception room.

E. Library.

F. Academic Department.

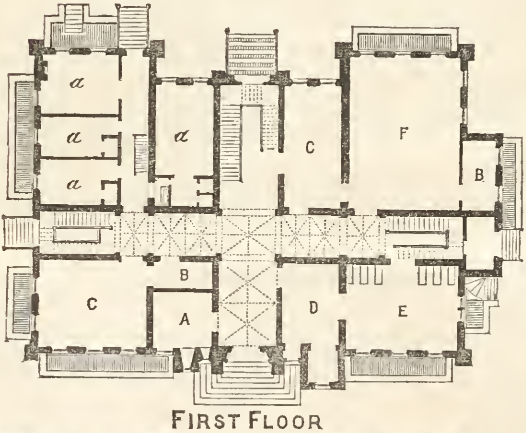


Fig. 7. Second Floor.

C. C. School-rooms

B. B. Wardrobes.

G. Collegiate Department.

H. Composition Department.

I. Collegiate Library.

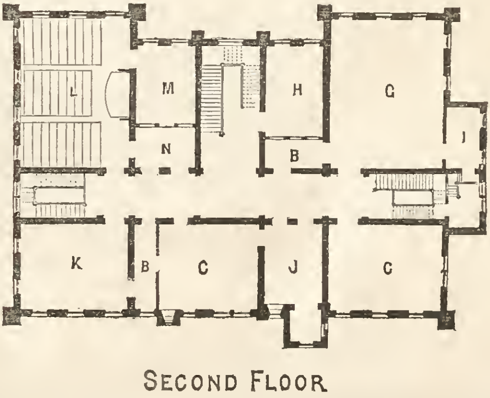
J. Recitation room.

K. Cabinet of Natural History.

L. Lecture room.

M. Laboratory.

N. Apparatus room



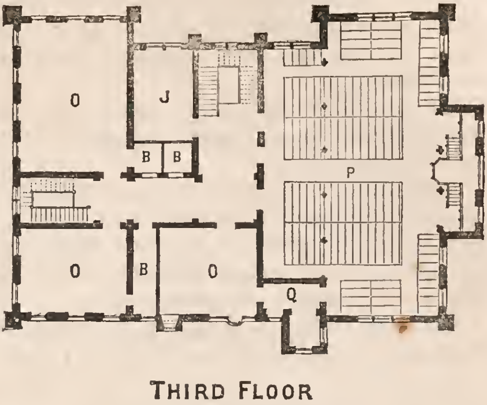


Fig. 8. Third Floor.

B. B. B. Wardrobes.
J. Recitation room.
O. O. O. Academic Department.
P. Chapel.
Q. Vestry.

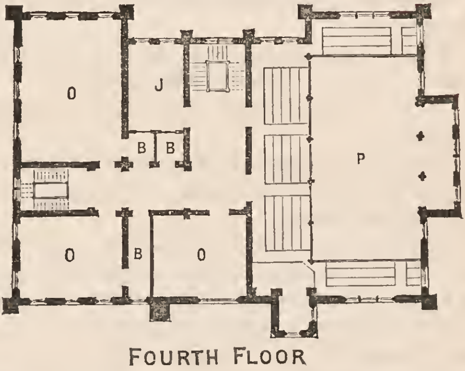


Fig. 9. Fourth Floor.

J. Recitation room.
B. B. B. Wardrobe.
O. O. O. Academic Departments.
P. Chapel.

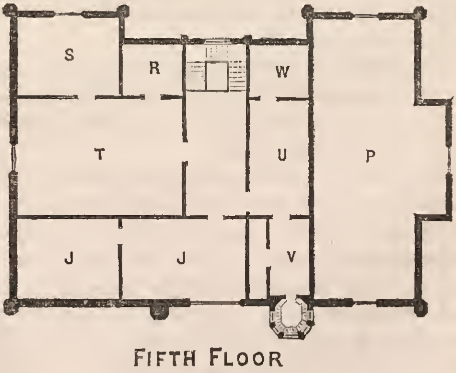


Fig. 10. Fifth Floor.

J. J. Recitation rooms.
P. Chapel.
R. Water Tank.
S. Room for Models.
T. Drawing and Painting room.
U. Astronomical Apparatus.
V. Hall to Observatory.
W. Store room.

Also, a commodious lecture room communicating with a laboratory, which may be regarded as a model, both in completeness and convenience of arrangement, for the exhibition of all the phenomena of modern Chemistry.

It has a cabinet which already contains many rare specimens in every department of Natural History, and which is continually adding to its valuable collection.

Attached to the building is a tower, resting upon a deep foundation, constructed at a great expense, for the support of a telescope. This is surmounted by a revolving dome, and efforts are now being made for the purchase of a superior achromatic instrument, to be equatorially mounted and provided with clock work, &c.

The entire building is thoroughly warmed by steam, and every room is ventilated by flues carried up in the inner walls.

The Institution has in its possession the largest planetarium in the country, and other astronomical apparatus.

Ample arrangements are made for an extensive library for the use of the students.

A large room, lighted from above, is provided for the drawing and painting classes, and every facility furnished.

There is a gymnasium fitted up in the building, with the usual apparatus.

The grounds, which are extensive, are laid out with care, and adorned with plants and shrubs, a portion of them being designed for the use of the botanical classes.

The plan of the school embraces a system of study in which pupils are advanced according to their proficiency; and diplomas are awarded to those who have completed the prescribed course.

The Institution is divided into three Departments, termed the preparatory, academic, and collegiate, which are again divided into 12 sections, each under the care of its own teacher. Besides these teachers, there are 12 other instructors in the various branches, making the whole number of teachers 24.

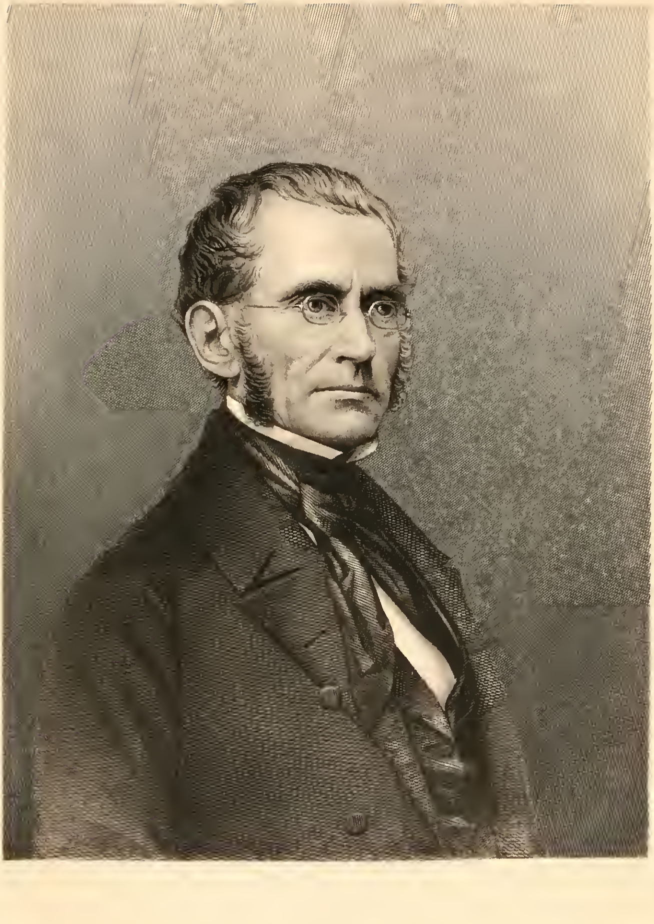
The Natural Sciences, Languages, and Composition, form each a separate department, under the care of its own professor.

The government of the school is strictly parental. It is like the intercourse of the home circle.

More than four hundred have completed its entire course and received its Diploma, while those who have pursued a partial course are numbered by thousands. Many of them are scattered over our country as teachers, and some are in the missionary field.

It should be mentioned that the endowment of this school, by its liberal patron, was made on the express condition that all profits arising therefrom should be faithfully applied to its further improvement, and for enlarging and increasing its facilities for instruction.

An Institution established on such a broad and firm basis, promises, for the future, the largest and most permanent usefulness.



Chas. Brooks

XIV. A CHAPTER* IN THE HISTORY OF NORMAL SCHOOLS

IN NEW ENGLAND.

In the autumn of 1834, Rev. Charles Brooks, pastor of a church in Hingham, commenced his labors in behalf of common schools, and particularly of the establishment of a state system of supervision, and of a Normal School. Mr. Brooks had become interested in these features of a system of public education during a visit to Europe, and from an opportunity of becoming well acquainted with the details of the Prussian system, in conversation with Dr. Julius, who was his companion across the Atlantic, during his voyage home, when the latter gentleman was on his visit to this country on a commission from the Government of Prussia, to examine into our system of prison discipline. As will be seen hereafter, that visit was twice blessed--it helped, by disseminating a knowledge of our improvements in prisons, and our amelioration of the criminal code, to advance the cause of humanity in Europe, and make known among our statesmen and educators the progress which had been made in Germany in the means and agencies of popular education. Mr. Brooks' first public effort was on the 3d of December, 1835, in a thanksgiving address to his people, in which he gave a sketch of the Prussian system of education, and proposed the holding a series of conventions of the friends of common schools to agitate the subject of establishing a Normal School in the old colony. The first of these conventions was held on the 7th of December, 1836, and continued in session two days. This was followed by a second, at Hingham, on the 11th; at Duxbury, on the 18th; at New Bedford, on the 21st and 23d; at Fair Haven, on the 23d; and at East Bridgewater, on the 24th and 25th of the same month. Mr. Brooks continued his labors in the county in the autumn and winter following, sometimes before conventions, and sometimes by his individual appointment. He was at Kingston on the 16th of January, 1837; at South Hingham, February 4th; at Quincy, February 21st; at Dunbury, May 10th; at Hansen, July 9th; at Plymouth, October 24th; and at Weymouth, November 5th.

The labors of this gentleman were not confined to the old colony, or even to the State of Massachusetts. In the course of the same year he lectured at Northampton, Springfield, Deerfield, Boston, Middleborough, and other places in Massachusetts, in 1836 and 1837, and particularly in the Hall of the House of Representatives on the 18th and 19th of January, 1837, during the memorable session of the Legislature, in which the Board of Education was instituted; and on the 28th of January, 1838, during the no less memorable session, by which the first appropriation in behalf of Normal Schools was made. His theme every where was the

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* From Barnard's "*Normal Schools and other Institutions, Agencies and Means designed for the professional Education of teachers. Part I. United States. Part II. Europe.*" H. Cowperthwait & Co. Philadelphia.

Teacher—"*As is the Teacher, so is the School*,"—and the aim of all his discourses was to induce individuals and legislatures to establish Normal Schools and other agencies for improving the qualifications and the pecuniary and social condition of the teacher, as the source of all other improvements in popular education. His facts and illustrations were drawn from the experience of Prussia and Holland. Mr. Brooks closed his active labors in this cause in Massachusetts after he had the satisfaction of seeing the Board of Education established, and the first Normal School opened; but not until he had made a powerful effort to get one of these institutions located in Plymouth county, by means of the educational convention held at Hanover, on the 3d of September, 1838, which was graced by the presence and address of several of the most distinguished public men in the commonwealth. After noticing the proceedings of that convention, we will return to our narrative.

At a meeting of the "Plymouth County Association for the Improvement of Common Schools," held at Hanover, September 3d, 1838, the question of a *Normal School in Plymouth County* was discussed by an array of distinguished men, such as the cause has seldom brought together in this country. The following notice of the proceedings is abridged from the Hingham Patriot. After an address by Mr. Mann, Secretary of the Board of Education, on "*Special Preparation, a Pre-requisite to Teaching*," Rev. Mr. Brooks, of Hingham, introduced a resolution approving of a plan, proposed by a committee of the Association, to raise in the several towns in the county a sum sufficient to provide a building, fixtures, and apparatus, in order to secure the location of one of the three Normal Schools which the Board proposed to establish in Plymouth county. Mr. Brooks excused himself from advocating the resolution, inasmuch as he had reiterated his views on the subject in every town in the county, and published them in two addresses through the press; he therefore gave way to friends from abroad, who had come with strong hands and warm hearts to aid in the holy work.

Mr. Ichabod Morton, of Plymouth, who had, two years before, out of a large heart, and small resources, offered to meet one tenth of the expense of the enterprise, advocated the raising up better teachers, who, by a Christian education, could carry the happiness of childhood fresh and whole through life.

Mr. Rantoul, of Gloucester, thought a reformation in our common schools was exceedingly needed, and this change for the better could only be effected by better teachers, well paid, and permanently employed.

Rev. George Putnam, of Roxburg:—

"For himself he saw no objection to the establishment of Normal Schools. But perhaps some might say, there was no need of special preparation for a teacher. To this opinion he must emphatically object. If there be any department for the able and proper performance of whose duties special instruction be absolutely necessary it is that of the educator. He said he had once kept school, and with tolerable acceptance, he believed, to his employers, but though just from college, he found himself deficient in the very first steps of elementary knowledge. He had studied all the mathematics required at Cambridge, but he did not know how to come at a young mind so as successfully to teach enumeration. He had studied the classics; but he could not teach a boy how to construct a simple English paragraph. He found himself wanting in that highest of arts, the art of simplifying difficult things so that children can grasp them. He therefore, from his own experience, ventured to say, that no liberal profession so comes short of its objects as that of the schoolmaster. Few, very few, apprehend its difficulties. To know how to enter the child's soul, and when there to know what to do, is knowledge possessed but by few, and if there be a province in which specific preparation be necessary it is this; and this very preparation is what Normal Schools promise to confer. We want no law schools, or any higher schools or colleges at this time, so much as we want seminaries, to unfold the young minds of this community. Another objection might be with some, that a Normal School in Plymouth County was some trick of the rich to get advantage of the poor. He ably refuted this objection. He said it happened to have a directly opposite tendency. It was to be a free school; free in tuition and open to the poorest of the poor. It would eminently benefit the poor. The rich would not go to it except where a great love of teaching actuated a rich young person. On the other hand it would be a free school where a very superior education would be furnished gratis to any one who wished to become a teacher in the county. Another objection might be felt by some, viz., that it may tend to raise the wages of our teachers. To this he replied, that females might become teachers to a wider extent than now. It would, moreover, raise common schools to be the best schools in the community; and when they had become the best schools, as they should be, then the money now spent in private schools would be turned in to the public ones, as in the Latin School at Boston, and higher wages could be given without any additional burden on our towns. He asked why should not the great mass of the people have the best schools? Why should not talent and money be expended on town schools as well as on academies and colleges? Let the town schools be made as good as to force all parents, from mere selfishness, to send their children. Let all our young people come together, as republicans should, find common sympathies, and move by a common set of nerves. The Normal School, while it opens infinite advantages to the poor, will lessen their burdens and elevate them to knowledge and influence."

Hon. John Quincy Adams:—

"He had examined the subject of late, and he thought the movements in this county by the friends of education had been deliberate and wise and Christian; and he thought the plan, contemplated by the very important resolution before the meeting, could not but find favor with every one who would examine and comprehend it. All accounts concur in stating a deficiency of competent teachers. He said, when he came to that meeting, he had objections to the plan rising in his mind; but those objections had been met and so clearly answered, that he now was convinced of the wisdom and forecast of the project, and that it aimed at the best interests of this community. Under this head, and alluding to his views, he said, the original settlers of New England were the first people on the face of the globe who undertook to say that all children should be educated. On this our democracy has been founded. Our town schools, and town meetings, have been our stronghold in this point; and our efforts now are to second those of our pious ancestors. Some kingdoms of Europe have been justly praised for their patronage of elementary instruction, but they were only following our early example. Our old system has made us an enlightened people, and I feared that the Normal School system was to subvert the old system, take the power from the towns and put it into the state, and overturn the old democratic principle of sustaining the schools by a tax on property; but, I am happy to find that this is not its aim or wish; but on the contrary, it is accordant to all the old maxims, and would elevate the town schools to the new wants of a growing community. He said, he thought of other objections, but they were so faint as to have faded out of his mind. We see monarchs expending vast sums, establishing Normal Schools through their realms, and sparing no pains to convey knowledge and efficiency to all the children of their poorest subjects. *Shall we be outdone by Kings?* Shall monarchies steal a march on republics in the patronage of that education on which a republic is based? On this great and glorious cause let us expend freely, yes, *more* freely than on any other. There was a usage, he added, in the ancient republic of Sparta, which now occurred to him, and which filled his mind with this pleasing idea, viz., that these endeavors of ours for the fit education of all our children would be the means of raising up a generation around us which would be superior to ourselves. The usage alluded to was this: the inhabitants of the city on a certain day collected together and marched in procession; dividing themselves into three companies; the old, the middle-aged, and the young. When assembled for the sports and exercises, a dramatic scene was introduced, and the three parties had each a speaker; and Plutarch gives the form of phraseology used in the several addresses on the occasion. The old men speak first; and addressing those beneath them in age, say,—

> "We have been in days of old
> Wise, generous, brave, and bold.'

Then come the middle-aged, and casting a triumphant look at their seniors, say to them,—

> "That which in days of yore ye were,
> We, at the present moment, are."

Last march forth the children, and looking bravely upon both companies who had spoken, they shout forth thus:—

> "Hereafter at our country's call,
> We promise to surpass you all."

Hon. Daniel Webster:—

"He was anxious to concur with others in aid of the project. The ultimate aim was to elevate and improve the primary schools; and to secure competent instruction to every child which should be born. No object is greater than this; and the means, the forms and agents are each and all important. He expressed his obligation to town schools, and paid a tribute to their worth, considering them the foundation of our social and political system. He said he would gladly bear his part of the expense. The town schools need improvement; for if they are no better now than when he attended them, they are insufficient to the wants of the present day. They have, till lately, been overlooked by men who should have considered them. He rejoiced at the noble efforts here made of late, and hoped they might be crowned with entire success. * * It has become the fashion to teach every thing through the press. Conversation, so valued in ancient Greece, is overlooked and neglected; whereas it is the richest source of culture. We teach too much by manuals, too little by direct intercourse with the pupil's mind; we have too much of words, too little of things. Take any of the common departments, how little do we really know of the practical detail, say geology. It is taught by books. It should be taught by excursions in the fields. So of other things. We begin with the abstracts, and know little of the detail of facts; we deal in generals, and go not to particulars; we begin with the representative, leaving out the constituents. Teachers should teach things. It is a reproach that the public schools are not superior to the private. If I had as many sons as old Priam, I would send them all to the public schools. The private schools have injured, in this respect, the public; they have impoverished them. They who should be in them are withdrawn; and like so many uniform companies taken out of the general militia, those left behind are none the better. This plan of a Normal School in Plymouth County is designed to elevate our common schools, and thus to carry out the noble ideas of our pilgrim fathers. There is growing need that this be done. But there is a larger view yet. Every man and every woman, every brother and every sister, is a teacher. Parents are eminently teachers. Every man has an interest in the community, and helps his share to shape it. Now, if Normal Schools are to teach teachers, they enlist this interest on the right side; they make parents and all who any way influence childhood competent to their high office. The good which these Seminaries are thus to spread through the community is incalculable. They will turn all the noblest enthusiasm of the land into the holy channel of knowledge and virtue. Now, if our Plymouth school succeeds, they will go up in every part of the state, and who then can compute the exalted character which they may finally create among us? In families there will be better teaching, and the effect will be felt throughout society. This effort thus far has done good. It has raised in many minds a clear conviction of the importance of competent teachers; and a clear benefit to follow this will be, to raise the estimation in which teachers should be held. He hoped that this course of policy would raise, even beyond what we expected, the standard of elementary instruction. He considered the cost very slight. It can not come into any expanded mind as an objection. If it be an experiment, it is a noble one, and should be tried."

[Mr. Webster has always stood out a bold and eloquent advocate of common schools. In his centennial address at Plymouth, in 1822, he paid the following noble tribute to the policy of New England in this respect:—

" In this particular, New England may be allowed to claim, I think, a merit of a peculiar character. She early adopted and has constantly maintained the principle, that it is the undoubted right, and the bounden duty of government, to provide for the instruction of all youth. That which is elsewhere left to chance, or to charity, we secure by law. For the purpose of public instruction, we hold every man subject to taxation in proportion to his property, and we look not to the question, whether he himself have, or have not, children to be benefited by the education for which he pays. We regard it as a wise and liberal system of police, by which property, and life, and the peace of society are secured. We seek to prevent, in some measure, the extension of the penal code, by inspiring a salutary and conservative principle of virtue and of knowledge in an early age. We hope to excite a feeling of respectability, and a sense of character, by enlarging the capacity, and increasing the sphere of intellectual enjoyment. By general instruction, we seek, as far as possible, to purify the whole moral atmosphere; to keep good sentiments uppermost, and to turn the strong current of feeling and opinion, as well as the censures of the law, and the denunciations of religion, against immorality and crime. We hope for a security, beyond the law, and above the law, in the prevalence of enlightened and well-principled moral sentiment. We hope to continue and prolong the time, when, in the villages and farm-houses of New England, there may be undisturbed sleep within unbarred doors. And knowing that our government rests directly on the public will, that we may preserve it, we endeavor to give a safe and proper direction to that public will. We do not, indeed, expect all men to be philosophers or statesmen; but we confidently trust, and our expectation of the duration of our system of government rests on that trust, that by the diffusion of general knowledge and good and virtuous sentiments, the political fabric may be secure, as well against open violence and overthrow, as against the slow but sure undermining of licentiousness."

In a speech delivered at Madison, Indiana, after congratulating the people of the state on the attention they had paid to common school education, Mr. Webster adds:—

" Among the planets in the sky of New England—the burning lights, which throw intelligence and happiness on her people—the first and most brilliant is her system of common schools. I congratulate myself that my first speech on entering public life was in their behalf. Education, to accomplish the ends of good government, should be universally diffused. Open the doors of the school-house to all the children of the land. Let no man have the excuse of poverty for not educating his own offspring. Place the means of education within his reach, and if they remain in ignorance, be it his own reproach. If one object of the expenditure of your revenue be protection against crime, you could not devise a better or cheaper means of obtaining it. Other nations spend their money in providing means for its detection and punishment, but it is for the principles of our government to provide for its never occurring. The one acts by *coercion*, the other by *prevention*. On the diffusion of education among the people rests the preservation and perpetuation of our free institutions. I apprehend no danger to our country from a foreign foe. The prospect of a war with any powerful nation is too remote to be a matter of calculation. Besides, there is no nation on earth powerful enough to accomplish our overthrow. Our destruction, should it come at all, will be from another quarter. From the inattention of the people to the concerns of their government—from their carelessness and negligence—I must confess that I do apprehend some danger. I fear that they may place too implicit a confidence in their public servants, and fail properly to scrutinize their conduct,—that in this way they may be made the dupes of designing men, and become the instruments of their own undoing. Make them intelligent, and they will be vigilant—give them the means of detecting the wrong, and they will apply the remedy."]

Rev. Dr. Robbins remarked—

"As the offer of the Normal Schools had been first made to the Old Colony, that "mother of us all," he hoped that the descendants of the pilgrims would sustain the exalted character of their fathers; and, as in times past, so now, go forward in improvements which are to elevate and bless all coming generations."

The object of the Convention was attained. One of the three Normal Schools which the Board had decided to establish out of the donation of $10,000, by Mr. Dwight, and the appropriation of the same sum by the state, placed at their disposal, was located at Bridgewater, in Plymouth County.

A previous convention in Plymouth County, at Halifax, on the 24th of January, 1837, had adopted a petition to the Legislature, drawn up by the Rev. Charles Brooks,* asking for the Establishment of a Board of Education, and a Teachers' Seminary; and in the same year, the Directors of the American Institute of Instruction presented a memorial on the same subject, drawn up by George B. Emerson,† of Boston. The Board of Education was established in that year, and the Normal School in the year following.

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* Although not directly connected with the history of Normal Schools in Massachusetts, it may be mentioned in this place, that no individual in the whole country has done more to arouse the public mind of New England to the importance of Normal Schools, and to some extent, the leading minds of some other states, than the Rev. Charles Brooks. He lectured before the Legislature of New Hampshire, by their request, at Concord, on the 13th, 14th, and 15th of June, 1837 and 1838, and again in 1845, and in the former year at Keene, Portsmouth, Concord, and Nashua; before the Legislature of Vermont, in 1847, and at several other points in that state; before the State Convention of the friends of education at Hartford, Connecticut, in November, 1838; before the Legislature of New Jersey, March 13, 1839; at Philadelphia about the same time; and at Providence in 1838, during the struggle which ended in the re-organization of the public schools of that city, and at a later period, when the establishment of the Public High School was in jeopardy. On one of these visits, Mr. Brooks delivered eight addresses in seven days. These, however, are not all the times and places in which we have met with notices of his labors and addresses in behalf of his favorite subject. Although his labors, every where, in his own country and out of it, in his own state and out of it, were gratuitous, he did not escape the assaults of the newspapers. In one of these, he was represented as "Captain Brooks," with ferule in hand, at the head of a troop of schoolmasters and schoolmistresses, marching for a Normal School in the clouds.

† Mr. Emerson commenced his career as a teacher, in a district school, and before opening his private school for young ladies, he was principal of the English High School, in Boston, on its first establishment, in 1821. Under his immediate direction, Colburn's "First Lessons in Intellectual Arithmetic," printed on separate sheets for this purpose, were first tested, and the deficiencies ascertained in the classes of this school. If Mr. Emerson had rendered no other service to the cause of educational improvement in this country, than to have successfully organized the First Public English High School, and have assisted in perfecting the "First Lessons," he would be entitled to a large measure of the gratitude of teachers and the public generally.

XV. IDIOTS AND INSTITUTIONS FOR THEIR TRAINING.

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It was not until the early part of the present century that the condition of the idiot began to attract the attention of the humane. The celebrated surgeon and philosopher, Itard, at Paris, foiled in his attempt to demonstrate his sensational theory by the idiocy of his subject, the famous Savage of Aveyron, was led to consider the possibility of instructing a class hitherto considered hopeless. Being, however, advanced in years, and suffering from the disease which finally terminated his life, Itard felt that his plans must be committed to younger hands for execution; his choice fell upon Dr. Edward Seguin, a favorite pupil of his, and the subsequent history of this noble philanthropic movement has demonstrated the wisdom of that choice. Dr. Seguin possessed an inextinguishable love for his race, indomitable perseverance, a highly cultivated intellect, and a rare degree of executive talent. There were many difficulties to be surmounted, many obstacles to be overcome, ere the first step could be taken; but, before his youthful ardor and enthusiasm, doubts vanished, difficulties disappeared, the thick veil which had enshrouded the mind of the idiot was rent asunder, and these innocent but hapless creatures were rescued from the doom of a life of utter vacuity.

As in other works of philanthropy, so in this, other laborers were ready at once to enter into the harvest. To some of these, undoubtedly, belongs the praise of originating modes of instruction which subsequent experience has proved successful. Among the early pioneers in the cause of the idiot, the names of Belhomme, Ferrus, Falret, Voisin, and Vallee, are deserving of special honor, as having contributed, in various ways, to its success.

Though something had been accomplished in the way of instructing individual cases, it was not till 1838, that a school for idiots was established which could be regarded as successful. In 1842, a portion of the Bicetre, one of the great hospitals for the insane, was set apart for their instruction, and Dr. Seguin was appointed director. He remained in this position for a time; but, subsequently, established a private institution for idiots in Paris.

It was during this period that he prepared his work on Idiocy, "*Traitement moral, hygiene et Education des Idiots*;" a work which entitles its author to rank with the first professional minds of the day. In his definitions, his classification, his diagnosis, and, above all, in his plans for the treatment and instruction of idiots, he exhibits so thorough a mastery of his subject, such philosophical views, and such admirable tact, that his treatise is invaluable as a manual to all who may undertake similar labors. In consequence of the revolution of 1848, in France, Dr. Seguin came to this country, and is now connected with the Pennsylvania School for Idiots, at Germantown.

The success of Dr. Seguin and his co-laborers, at Paris, stimulated the philanthropic in other countries of Europe to attempt similar institutions. Of these, that established at Berlin, in 1842, under the direction of M. Saegert, has been most successful. Our reports of this Institution are not very late, but it is still, we believe, in a prosperous condition. M. Saegert seems to possess, in a very high degree, that genial temper so necessary for the successful training of this unfortunate class.

Contemporaneously with the organization of the school for idiots, at Berlin, the attention of the benevolent was called to a class of imbeciles, hitherto entirely neglected, but whose numbers seemed almost sufficient to paralyze effort in their behalf.

In Savoy, and the departments of Isere, of the High Alps, and the Low Alps in France, as well as in some of the other mountainous districts of Europe and Asia, especially in the narrow and precipitous valleys of these regions, a disease prevails, known as goitre. Its most marked feature is a prodigious enlargement of the glands of the throat, accompanied, in most cases, with general degeneration of the system. It is attributed by medical writers to impurity of air and imperfect ventilation, to want of sufficient light, the sun penetrating these valleys for not more than one or two hours of the day, to impure water, innutritious food, severe labor, and extreme poverty. The children of these persons are, of course, far more diseased than their parents, and are subject to a form of idiocy called Cretinism. Retaining usually the goitre, they also suffer from feeble and swollen limbs, distorted and deformed features, pale, bloodless and tumid skin, and almost entire helplessness. They form, indeed, the lowest grades of idiocy. The number of these poor wretches is almost incredible. In the four departments named above, with a population of 958,000, M. Niepce found, in 1850, 54,000 Cretins, or about five per cent. of the entire population. In several of the cantons, one-third of the whole population were Cretins; and, in some hamlets, as, for instance, in that of

Bozel, in the canton of the same name, out of 1,472 inhabitants, 1,011 were either affected with goitre or cretinism.

The attention of a young physician of Zurich, Dr. Guggenbuhl, was attracted to these unfortunates in 1839; and, after two or three years of experiment had demonstrated the possibility of improving their condition, he resolved to devote himself to their instruction. He accordingly purchased from the eminent agriculturist, Kasthofer, a tract of land, which he had already put under cultivation. It was situated on the Abendberg, above Interlachen, about four thousand feet above the level of the sea, and commanded a view of one of the finest landscapes in Switzerland. To this elevated and healthful location he brought as many cretin children as he had the means of instructing; and, with a philanthropic zeal and patience which none but those who have witnessed his labors can fully appreciate, he has toiled on, (till impaired health compelled him, some three years since, to entrust his cares, for a time, to other hands,) developing intellect where few would have suspected its existence, and carrying joy to many a household which had mourned over the hopeless idiocy of their children. This institution has been the parent of several others for the treatment of cretins on the continent of Europe, particularly in Wurtemburg, Bavaria, Sardinia, Prussia and Saxony.

Dr. Kern, formerly of Eisenach, established, at Leipsic, in 1846, a private institution for the education of idiots or feeble-minded youth. In 1855, a building was erected for this institution in the village of Gohlis, near Leipsic. Children are received without distinction of birth-place, religion, or sex, their friends or charitable persons paying the necessary charges.

The translation and publication of some reports of the school on the Abendberg by Dr. Twining, and Dr. Conolly's account of the labors of Dr. Seguin and his coadjutors, led to the establishment of a school for idiots at Bath, England, in 1846. Others were organized soon after at Brighton and Lancaster. In the autumn of 1847, an effort was made to establish an institution on a large scale, capable of accommodating the increasing numbers who sought for instruction. In this movement, Rev. Dr. Andrew-Reed (whose visit to this country will be remembered with pleasure by many,) was the leader, and to his labors and those of Dr. John Conolly, whose life-long devotion to the cause of the insane have made him known wherever the English tongue is spoken, the success of the enterprise is mainly due. While making preparations for the erection of a magnificent hospital for idiots, the patrons of this institution deemed it desirable to commence, at once, the work of instruction, and accordingly, a school was commenced at the Park House, Highgate, (formerly a nobleman's residence,) on the 27th of April, 1848. This becoming full in less than two years, the committee accepted the liberal offer of Sir S. M. Peto, to devote Essex Hall, Colchester, to their service. This, also, was soon filled and a third building obtained. Meantime, the friends of the idiot were indefatigable in their efforts to procure funds for the erection of their new asylum. In June, 1853, the corner-stone of the new edifice, at Earlswood, near Reigate, Surrey, was laid by Prince Albert. It is intended to contain accommodations for 400 pupils, and is now nearly or quite completed. Its estimated cost is $175,000, aside from the price of the estate, which contains about one hundred acres. It is intended to elevate Essex Hall into an independent asylum, on the completion of the edifice at Earlswood. Measures have also been recently adopted for the establishment of an Asylum for idiots in the vicinity of Edinburgh, and at several other points in the United Kingdoms.

The movement in this country appears to have been contemporaneous with that in England. On the 13th of January, 1846, Hon. F. F. Backus, of Rochester, New York, at that time a member of the Senate of that State, moved a reference of that portion of the State Census referring to idiots, to the committee on Medical Societies, of which he was chairman, and on the 15th of the same month read a report on the subject, prepared with great care, and embodying the results of inquiries made the previous Autumn, urging the necessity of an institution for idiots, in the State of New York, and narrating the success of similar institutions in Europe. On the 25th of March following, Dr. Backus reported a bill for the purchase of a site and the erection of suitable buildings, for an Asylum for Idiots. His bill passed the Senate, and was at first concurred in by the House, but subsequently rejected, on the ground that the party who were then in power had pledged themselves to retrenchment of the expenses of the State. A similar bill passed the Senate the succeeding year but was lost in the house.

On the 22nd of January, 1846, Hon. Horatio Byington, (in whose recent death Massachusetts has lost an eminent citizen, and humanity a benefactor,) offered a resolution in the Massachusetts House of Representatives, for the appointment of a commission to investigate the condition of idiots, in that State. Judge Byington's attention had been called to the subject, according to his own statement, by a letter from Dr. S. B. Woodward, the eminent philanthropist, with whom Dr. Backus had held correspondence previous to his own action, in the New York legislature.

The resolution of Judge Byington passed both houses, and Dr. S.

G. Howe, so well known for his labors in behalf of the blind, Judge Byington and Gilman Kimball, Esq., were appointed Commissioners. Their reports were very full and able, and conclusively demonstrated the necessity of providing for the instruction of the unfortunate class whose condition they had investigated. For the purpose of testing the capacity of idiots for instruction, however, an experimental school was established at South Boston, under Dr. Howe's personal supervision. This resulted in the establishment, in 1851, of the "Massachusetts school for idiotic and feeble-minded youth," at South Boston, of which Dr. Howe has a general oversight.

It is not to be understood, however, that idiots had not been instructed, in this country, previous to the Autumn of 1848, the period when the experimental school, at South Boston, was organized. Indeed, there is reason to believe that their instruction had been attempted, with success here, prior to the first efforts in Europe. As early as 1818, an idiot girl was admitted into the American Asylum for the Deaf and Dumb, at Hartford, Conn., and remained under instruction till 1824. Others were received during nearly every subsequent year, and some of them made very considerable progress. In all, thirty-four idiots have been pupils at that institution, and the success which has followed the efforts for the instruction of several of the cases, of which we have a detailed narrative, would do no discredit to any Asylum for Idiots, either in Europe or this country.

In 1839, an idiot boy was received into the New York Institution for the Deaf and Dumb, and remained for three years, under the instruction of Prof. Morris, with very favorable results.

The same year, Dr. S. G. Howe commenced the instruction of an idiotic blind child, at the Perkins Institution for the Blind, in South Boston.

In July, 1848, Dr. H. B. Wilbur, of Barre, Mass., who had for several years taken a deep interest in the condition of idiots, opened a private institution for their instruction, which, both under his administration and that of his successor, Dr. Geo. Brown, has met with the most gratifying success.

Other gentlemen in Massachusetts devoted a large measure of zeal and energy to the promotion of this good work. Among these it may not be invidious to name Mr. George Sumner, whose eloquent letters from Europe, describing the school at Bicetre, rendered efficient aid to the incipient organization of the Massachusetts School for Idiots, and Dr. Edward Jarvis, whose valuable statistics on the subject of insanity and idiocy, recently published, have laid the country under obligation.

The Legislature of New York, though before any other in taking cognizance of the subject of idiocy, was more tardy in its action than that of Massachusetts, and it was not till 1851 that an experimental school was established at Albany, and Dr. Wilbur, who had already had three years experience in the instruction of imbeciles, at Barre, was elected its Superintendent. In 1854, the corner-stone of the State Asylum for Idiots, was laid at Syracuse, and in August, 1855, the school at Albany, already permanently established, was removed to the new edifice. The Asylum occupies a commanding site, to the southwest of the city of Syracuse, and while its architectural beauty renders it an ornament to the enterprising city whose liberality secured its location, and to the State whose munificence provided such ample accommodations for this hitherto neglected class, its internal arrangements are so admirable as to make it a desirable model for institutions of the kind.

With an edifice so well arranged, a superintendent in whom are combined, in a remarkable degree, those traits of character which mark the successful instructor, and a corps of teachers of extraordinary efficiency, it is not surprising that the results attained by the Asylum, even at this early period of its history, surpass those of any institution of the kind in this country or Europe.

Pennsylvania has also established a school for the training of idiots, at Germantown, now in its third year of successful progress under the care of Mr. J. B. Richards, who was connected with the Massachusetts experimental school during the first two or three years of its history. The recent accession of Dr. Seguin to the corps of instructors in this school, can not fail to increase, very greatly, its reputation.

During the past year, Connecticut and Kentucky have taken the first steps toward the establishment of similar institutions.

Having thus hastily sketched the history of this humanitarian movement, it remains for us to discuss the objects proposed in the treatment of Idiots, the means by which these objects are accomplished, and the results thus far attained in the most successful schools.

It may be well, as a preliminary step, to answer two or three questions which meet us at the threshold of our investigations. And first, what constitutes idiocy? "The type of an idiot," says Dr. Seguin, "is an individual who knows nothing, can do nothing, and wishes nothing; and every idiot approaches more or less to this maximum of incapacity." Of the many definitions which writers on this subject have essayed, no one appears entirely free from objection; and though we can hardly hope to escape falling into the same condemnation, we are disposed to offer one which shall, at least, possess the merit of brevity. We should define idiocy, then, *as the result of an infirmity of the body which prevents, to a greater or less extent, the development of the physical, moral and intellectual powers.*

What is the proportion of idiots to the population? The data we yet possess do not seem to be sufficient to answer this question accurately, in regard to our own country, though approximations have been made towards a census of this class, in several States. In the mountainous districts of Europe the number of cretins, as already stated, is very great. In the Alpine districts they constitute from 5 to 10 per cent. of the population; in Great Britain, according to recent returns, there are over 50,000, a little more than one-half of one per cent.; in France, nearly or quite one-third of one per cent.; in this country, Connecticut has fully one-fifth of one per cent.; Massachusetts, according to Dr. Jarvis' late report, has about one-ninth of one per cent.; but this is undoubtedly far below the truth, for it is almost impossible to obtain, even with tolerable accuracy, the statistics of large cities; thus, in Dr. J.'s report, Boston, with 170,000 inhabitants, reports only 21 idiots, while Barnstable, with only 5,000, reports 25!

What are the causes of idiocy? Few questions are more difficult of full and satisfactory solution than this. We have already enumerated the alledged causes of cretinism, but we are satisfied that M. Niepce has not given sufficient prominence to one cause to which he refers incidentally, the *bad brandy*, ("mauvaise eau-de-vie,") which they drink in such quantities as to produce the most brutish intoxication.

In England and this country, intemperance on the part of one or both parents, is certainly the most prolific cause of fatuity, and when poverty, filth, recklessness, and intemperance are united, and the half starved inebriate, maddened with woe, drinks that he may forget his wretchedness, we have a combination of circumstances which can hardly fail to produce idiocy in his offspring.

There are cases, however, and the number is quite considerable, in which we must look for other causes than intemperance or extreme poverty. For some of these the inter-marriage of near relatives, for one or two generations, is a satisfactory reason; for others, hereditary tendency to insanity, to scrofula, or to consumption; in others still, indulgence in licentious habits, or the attempt to destroy the life of the unborn babe, a practice which is fearfully increasing in our country, must be assigned as the cause; ignorance, selfishness, and avarice, must be reckoned, also, among the sources of this fearful infirmity. It has often occurred that when one or both parents were so fully possessed with the greed of gain, that intellectual and moral culture were wholly neglected, and in their furious pursuit of wealth they paused not for the rest of the Sabbath, thought not of the future, and heeded not the appeals of the poor, the sick, or the dying for sympathy or succor, their offspring have been idiots of the very lowest class.

In short, humiliating as the thought may be, we are driven to the conclusion that the vast amount of idiocy, in our world, is the direct result of violation of the physical and moral laws which govern our being; that oft times the sins of the fathers are thus visited upon their children; and that the parent, for the sake of a momentary gratification of his depraved appetite, inflicts upon his hapless offspring a life of utter vacuity.

We shall come to a better understanding of the objects to be attained in the treatment of idiocy, if we consider first the condition of the idiot before he has been instructed. When first brought to the Asylum, he is generally feeble, wanting in muscular development, often partially paralyzed, sluggish, and inactive; the circulation of the blood is very imperfect, especially in the extremities; there is a general unhealthy look; the nervous system is frequently deranged; the gait and voluntary movements generally awkward and irregular; he is usually addicted to slavering and automatic motion of the head, hands, lips, or tongue; the senses are undeveloped; the eye is perfectly formed, but the retina communicates to the brain no definite idea of form, color, or size; the ear is without defect, yet often the sweetest notes of music and the most hideous and discordant sounds pass alike unheeded; the organs of speech are as perfect as those of Webster or Clay, but he is either entirely dumb, or utters only guttural sounds which convey no idea to others; his appetite, tastes, and habits are more gross than those of most animals; he often exhibits the voracity of the wolf, and the uncleanliness of the swine. His mind is as much degraded as his physical nature—only his instincts of hunger, thirst, fear, rage, and resistance have been developed. It is needless to add, that while in such a condition moral emotion is impossible. Such is the condition of very many of those who are brought to these institutions for training. It would be difficult to conceive of cases apparently more hopeless.

The object of training is to change this torpid, sluggish, inert condition, to health, vigor, and activity; to send the healthy red blood coursing through the veins and arteries; to overcome the automatic movements, and subject the nervous system to the control of the will; to substitute for the vacant gaze of the idiot, the intelligent, speaking eye, which recognizes the hues of beauty in the rainbow, and reads in the countenance of friendship, the look of reproof or the glance of love; to accustom the inattentive ear to recognize the stern tones of rebuke, or the gentle accents of affection; to notice and enjoy the melodies of the songsters of the grove, or the more expressive songs warbled by human voices; to accustom those lips which have hitherto uttered only unmeaning and discordant sounds, to speak, if not with all the graces of oratory, at least with distinctness and fluency.

A further object of training is to overcome the filthy and degrading habits in which the idiot has hitherto indulged; to transform this gluttonous, beastly creature, into a man, capable of observing all the proprieties of life, no longer greedy, selfish, voracious, and quarrelsome, but temperate, quiet, courteous, and thoughtful of the interest of others; to rouse the hitherto dormant intellect, to induce mental activity, and stimulate thought and study; and above all, to awaken the consciousness of his responsibility to God, and of his duties toward his fellow man.

Do you say that the attainment of these objects is beyond the power of humanity? We answer that this result has been accomplished, and is now in the process of accomplishment, in every school for idiots in this country and Europe. It requires, indeed, patience, intelligence, and love, all in active exercise; but these qualities have not yet deserted our earth, and there yet live men and women whose names should be held in everlasting remembrance, for that moral heroism which has led them to devote the best years of their lives to the elevation of these, the lowest and humblest of our race.

The means adopted to accomplish such wonderful results are, of course, varied. Among these the apparatus of the gymnasium holds a high rank. By means of the ladders, swings, steps, dumb bells, &c., the muscular system is developed and invigorated; automatic movement overcome; the eye, the ear, and the muscles brought under the control of the will; concert of action and obedience to commands enforced; and the perceptions quickened and elevated.

The cultivation of the faculty of speech is a work of great difficulty, often requiring one or two years of patient labor before the enunciation of the first word. Instruction in this, as in every thing else where idiots are the pupils, must be of the most elementary character. It is necessary, for instance, in teaching the compound sounds, such as *ch*, *th*, *gr*, *br*, *cr*, to resolve them into their original elements, and teach the child each constituent, at first, separately, and afterwards in combination. The attention is attracted and the perceptive faculties cultivated by lessons in objects; form and size are taught by blocks of different sizes and forms, which the pupil is required to insert into corresponding cavities in a board; color by wooden figures of the same form but of different hues. Practice in working with crewels, and picture lessons have also proved of great advantage.

Words are next taught, not letters, for a *word* can be associated with an object, in the mind of a pupil, while letters can not; next, the ideas of form and size, already acquired, are put in practice by writing and drawing; Geography is taught by outline maps, and the elementary principles of grammar by exercises dictated by the teacher.

The idea of number is, perhaps, the most difficult of acquisition for the idiot. Very few can count beyond three or four when brought to the Asylum. This incapacity is overcome by patient and repeated exercises, until, step by step, the mysteries of numeration, addition, subtraction, multiplication, and division have been unravelled. The process is slow and painful, but it is at last crowned with success.

In the development of the moral nature, great difficulties are encountered. The comprehension of an abstract idea is far beyond an idiot's capacity; his conception of goodness must be derived from the manifestation of it in his teachers and friends; of sin, from his own misconduct or that of others; hence, with him, love must be the key note of all progress, and under its genial influence, his stubborn and refractory nature will yield like wax before the fire; his vicious and hurtful propensities become subject to control; and learning to love "his brother whom he hath seen," he soon attains to some knowledge and love for "God whom he hath not seen," and his humble, childlike faith should put to the blush many, who with more exalted intellects are wandering in the mazes of unbelief.

Not far from one-fourth of all the idiots in any State or country, are susceptible of improvement by the treatment we have described. In the countries where cretinism prevails, pupils over seven years of age are not considered as capable of successful instruction, but in other countries idiots are received up to the age of fifteen or sixteen, and in the English schools up to twenty-five or thirty, even. There is, however, far less hope of material progress in adults than in children—and it is hardly desirable that those beyond fourteen or fifteen should be placed under instruction. Epilepsy, a not infrequent concomitant of idiocy, is a serious bar to improvement, and where severe, entirely precludes the idea of any considerable success.

That the schools already established have been successful, in improving the condition of idiots, beyond what their most sanguine friends dared hope, is a fact admitting of no question; that they are not yet perfect, none will more readily acknowledge than those who have labored longest in them; further experience will undoubtedly add to the resources of the teacher, and may render his labors less arduous, while it insures him a greater measure of success. What has already been accomplished may, perhaps, be more satisfactorily demonstrated by the narrative of a few cases, than by any other method.

The following case is from the report of the English Asylum for Idiots, at Highgate, for 1854:

"B. T., a boy aged 15 years. Admitted, *Oct.*, 1852. Was the sport of all the boys of the village; was afraid of strangers; would not speak to any one, even to his friends; he appeared quite hopeless. *April*, 1854. He did not speak for four months after admission; was constantly moping; he has now found that he is with friends, and is gaining courage; can speak well; will repeat the creed, commandments, and church prayers accurately; is very attentive to the religious services at home, and is anxious to go to church every Sunday; can read and write well; and is a basket maker."

The following is from Dr. Guggenbuhl's report, for 1852:

"Marie was received into the Institution of the Abendberg, at the age of seven and a half years. She was in a state of atrophy; her skin was cold, hung loose like a sack, and was covered with an eruption; she could not walk; her joints were soft and unable to support her weight; she could not speak a word, but would make a howling noise for hours together; ate any thing that came in her way; destroyed all that could be broken, and gave no attention to any thing that passed before her; at times she would beat and even bite herself; during several months she never slept at night. After six months she was able to stand alone, and at the end of a year could walk very well; her voracious appetite is overcome, and she now eats properly; the nervous excitement is subdued; she is obedient and friendly; converses very well; plays with flowers and animals, calls them by name, and enjoys the blessing of sleep of which she had long been deprived."

Dr. Brown, the Superintendent of the Institution at Barre, Mass., gives the following case in his report for 1853:

"A young man of 18 years of age, who, from infancy, had been always peculiar and deficient in his mental manifestations, and was entirely dumb. From want of proper culture and direction of the vocal organs, he could make only the guttural sound of the Trachea; did not move the lips when attempting to utter sounds; was extremely filthy and brutish in his habits, disobedient and sluggish in the extreme.

His physical health was perfect, his muscles were largely and well developed. His perception was good, and he understood what was said to him but could not apply his knowledge; his hearing was perfect. Having been left unrestrained from childhood, and having attained to an age when the evil habits he had acquired had become fixed, and his animal appetites being his only source of enjoyment, I received him with great reluctance, expecting that he would make very little improvement.

He has now been with me a little more than a year. It was nearly three months before I succeeded in inducing him to utter a correct vocal sound. I moulded his lips with my fingers; put blocks and rings of various sizes and shapes into his mouth; taught him general and special imitation; and finally succeeded in concentrating sufficient nervous energy on the muscles of the lips and vocal organs to enable him to master all the vowels, and by dint of perseverance, patience, and drilling, he finally acquired the ability to pronounce the consonants and many of their combinations. By a rigid course of discipline his filthy habits were overcome.

He now reads in Webb's First Reader, and is rapidly learning to speak the names of surrounding objects. His ideas of form, of color, and of numbers, are now very good, and he is acquiring a general knowledge of Geography, Arithmetic, and Natural Philosophy. He can write well from a copy, can draw very creditably and is apt at almost any kind of labor. No one would imagine that this well behaved young man, could have led such a mere animal life one year since. He will be capable, under proper superintendence, of being highly useful in any department of labor, and had he been under suitable training when young, he would have been, I think, entirely cured of all his deficiencies.

Dr. Howe, in his report for 1851, describes the following case:

"S. J. W., six years old when admitted in Oct., 1848. He was a pitiful sight to behold. He could not stand or even sit erect. He had no command of his limbs, not even so much as an infant of three months, for it can work its arms and kick its legs vigorously; this poor boy, however, could do neither, but lay almost like a jelly-fish, as though his body were a mass of flesh without any bones in it. He could not even chew solid food, but subsisted on milk, of which he drank large quantities. The utmost he could do, in the way of motion, was to prop up his head with one hand, and move the other feebly about. He seemed to hear, but his eyes were dull and his other senses quite inactive. He drivelled at the mouth, and his habits were, in all respects, like those of an infant. He was speechless, neither using nor understanding language, though he made several sounds which seemed to be a feeble imitation of words.

The mode of treatment adopted was this: he was bathed daily in cold water; his limbs were rubbed; he was dragged about in the open air, in a little wagon, by the other boys; his muscles were exer cised; he was made to grasp with his hands, and gradually to raise himself up by them; he was held up and made to bear a little weight on his lower limbs; then a little more, until, at last, to his great delight, he was able to go about alone, by holding on the wall, or to one's finger; even to go up stairs, by clinging to the balusters. During the second year he has continued to improve. He is now decent in all his habits, and tidy in his appearance; his countenance is bright and pleasing; he can sit at the table and feed himself with knife and fork; and though he does not venture tò go alone, his limbs not being quite strong enough, he can almost do it, and he walks about by holding on to one's finger; all his senses have improved greatly, and he is so changed, generally, that he could hardly be recognized as the same being who, two years ago, incapable of sitting at a desk, used to lie upon a mattress in the school-room."

Mr. James B. Richards, of Germantown, gives the following account of the remarkable improvement of a boy under his training.

"A case of congenital idiocy—one of the most hopeless and degraded creatures that could be found; presenting to the bodily eye extremely feeble claims to being called a human being. He had not learned to creep, nor had he even strength sufficient to roll himself upon the floor when laid upon it. Owing to a paralysis of the lower limbs, they were insensible to pain. Mastication was, with him entirely out of the question. His mother told me that she used to feed him almost exclusively on milk, purchasing for him, as she said, a gallon per day. Although five and a half years of age, he had not apparently any more knowledge of things, their names and uses, than a new born infant.

This being the lowest case that could be found, to test the feasibility of the plan to develop and educate idiotic and imbecile children, it was thought best to undertake his training, although it seemed more like a work of creation than of education. The most sanguine friends of the cause threw discouragements in the way. Yet by a patient and persevering system of well directed effort, he has been so far developed that, at the present time, he walks about the house or yard without any assistance; takes care of himself; attends to his own immediate wants; sits at the table with the family, and feeds himself as well as children ordinarily do; talks perfectly well, and is acquainted with the things around him. In short, *he has learned to read*, and does not differ in his habits from a boy four years of age, unless it be that he is more sluggish in his movements."

A recent visitor at the New York Asylum for Idiots, narrates the following cases:

"Nattie and Willie, now 11 and 12 years of age, were taken from the Idiot house on Randall's Island, by Dr. Wilbur, in Dec., 1851. Their appearance, as described by persons who saw them at that time, must have been painful and disgusting in the extreme. Both had been idiots from birth, both were partially paralyzed, and both entirely dumb, and not capable of understanding more than a dozen words. So hopeless was their condition that the physician at Randall's Island, who was absent when Dr. Wilbur selected them, on his return, wrote to Dr. W., expressing his regret at his selection, as he feared that it would only bring disgrace upon the effort to instruct idiots, to attempt the instruction of those who were so evidently beyond the reach of improvement.

Both now exhibit as much intelligence as ordinary children of their age. Neither speaks very fluently, in consequence of some paralysis still existing, but both are improving rapidly in this respect. Both write well on the blackboard. In thorough knowledge of Grammar and Geography, very few children, of their age, are their equals. In a very severe and protracted examination in Geography, embracing minute details in regard to the topography of most of the countries on the globe, and many particulars in regard to physical Geography, and drawing maps upon the blackboard, neither they nor the other members of a class of six or seven missed a single question. In Grammar, both supplied adjectives, nouns, verbs, or adverbs, to given verbs and nouns, with remarkable promptness and to an extent which would have severely tasked my vocabulary. In Arithmetic, both exhibited perfect familiarity with the ground rules, and Nattie gave at once, any and all multiples of numbers as high as 132, and added, multiplied, and divided fractions with great readiness.

In Bible History, they related, partly in pantomime, but in a most graphic way, any required Bible incident. The extremely amiable and affectionate manners of these two interesting children, and the intense activity of their newly developed intellects, render them particularly attractive to the visitor.

J. C., a girl of 15 years of age, has been under Dr. Wilbur's care a little more than four years. When received, she was mischievous and vicious, very nervous, and could not speak distinctly. She could not be left alone with other children, from a propensity to injure them. She knew some of her letters, but could not be taught to read or write by any ordinary methods.

She now reads well, writes a handsome hand, is remarkably proficient in Geography and Grammar, and has made good progress in addition and subtraction. She sews very neatly, and is very capable as an assistant in household matters. Her nervousness is no longer troublesome, her waywardness has entirely disappeared. In respect to moral training, she seems more advanced than most of the other pupils. She manifests a remarkable familiarity with Bible History, and with the events in the life of our Saviour. When requested to repeat the Lord's Prayer, she did so with a reverence, an impressiveness, and an evident understanding of its petitions, which exhibited in a very favorable light, her intelligence and thoughtfulness; and as I listened to this once vicious and wayward idiot, thus uttering, in our Saviour's own words, her petitions to the throne of heavenly grace, I was more deeply impressed than ever before, with the adaptation of that sublime prayer to every human want."

Such are the results attained in the very short period since these schools have been established. That all idiots will not make as great improvement as some of these, is undoubtedly true; but all of suitable age and health will improve, and that sufficiently to satisfy the most exacting.

Nor does the history of the past condition of this hapless class afford us any ground for hope that they can be materially elevated from their present condition, by any other means. Nearly, or quite, one-half of the whole number are tenants of our alms houses or houses of correction. Full one-half of the remainder are children of parents who are steeped to the lips in poverty; for these, whether in the alms house or out of it, there can be no improvement, except by removal from their present associations. Fed with improper or innutritious food, often allowed the use of intoxicating drinks, generally idle, often made the sport of thoughtless children and adults, without shame or sense of decency, filthy and degraded, they are pests in community, often exerting a depraving influence over the young, which no subsequent instruction can remove. Nor are the imbecile children of the wealthy generally benefited by their parents' wealth, if allowed to remain at home. The sluggish, inactive temperament, and gluttonous appetite, which are the greatest obstacles to success in their treatment at Asylums, are pampered and indulged at home,—and it often occurs that the worst pupils, in an Institution for Idiots, are the children of the rich. In the present condition of society we see no alternative. These helpless and degraded fellow creatures are on our hands, and we must provide for their instruction and improvement; if we can remove, in part, the blighting, withering results of violated physical laws, let us do so; for they are the victims, not the offenders.

There is, indeed, a great work for the philanthropist and moral reformer to accomplish, to remove the causes of idiocy, insanity, pauperism, and crime. God has granted to our day and generation, a clearer insight into the sources whence spring these gigantic evils, than to our fathers, and he has imposed upon us a corresponding obligation to use our best endeavors for their removal. Every arrival from Europe brings hither a host of the lower classes of European Society, often ignorant, degraded, and vicious. These, if suffered to congregate in our large cities, taint the whole community, as with a moral pestilence. They must be scattered over the vast prairies of the west, where profitable labor is possible, where their influence will not be felt, and where, with the prospects of a life of comfort before them, they may become good citizens.

The evils of intemperance must be stayed; we care not whether it be accomplished by a prohibitory law or by any other effective means; but the middle and higher classes owe it to themselves as well as to the suffering poor, to stop the swelling tide of human woe which this vice daily produces; to accomplish this it is not sufficient to close the dram shops,—the use of alchoholic drinks must be abandoned at the tables of the rich, as well as in the hovels of the poor.

A great reform is also needed in the homes of the poor. Model lodging houses and tenements must be erected, not in low, dank, miasmatic localities, but in healthy situations, where light and ventilation, frequent bathing, economy in warmth and cooking, and the privacy of home can be attained; the renting of cellars as tenements and the occupation of tenant houses, such as our public prints have recently exposed, must be prohibited under the severest penalties. Measures must also be adopted for the instruction of the masses, not only in those physiological laws which appertain to their health and well being, but in those branches of intellectual culture which will improve their social condition, and those questions of morals and religion which concern their eternal welfare.

We are firm believers in "the good time coming;" we are satisfied that the race is making progress, that as an eminent statesman has well said, "the frightful number of those unfortunates, whose ranks encumber the march of humanity,—the insane, the idiots, the blind, the deaf, the drunkards, the criminals, the paupers will dwindle away, as the light of knowledge makes clear the laws which govern our existence." But in the words of the same eloquent writer, "in the meantime, let none of them be lost; let none of them be uncared for; but, whenever the signal is given of a man in distress, no matter how deformed, how vicious, how loathsome, even, he may be, let it be regarded as a call to help a brother."

XVII. FAMILY TRAINING AND AGRICULTURAL LABOR IN REFORMATORY EDUCATION.

In our last Number, [for March,] a few remarks were made on the Crimes of Children, for the purpose mainly of arresting the attention of our readers to the length and breadth of the great subject of preventive and reformatory institutions and agencies. We continue the subject in this number by presenting an account of the Agricultural Colonies of France, and particularly of that of Mettray, by M. Demetz,—who in that establishment has achieved one of the most remarkable educational works of our age, by applying on a large scale the principles of domestic and agricultural training to the reformation of young criminals, and the still higher purpose of preventing pauperism and crime, by incorporating those principles into the early education of orphan, pauper and neglected children. His success, confirming the earlier experience of Pestalozzi, at Neuhof, and of Wichern, at Hamburg, has established the practicability of accustoming young persons, who have been deprived in early life of a religious home, or been subjected to vicious associations and overpowering temptations, to habits of useful labor, and to the kindly restraints and humanizing influences of domestic life.

Small rural colonies, arranged in families, are fast supplanting the great hospitals and asylums, where hundreds of orphans it may be, are well fed, clothed and lodged, under salaried governors, secretaries and keepers, but with little or nothing of that fireside education, that cultivation of the feelings, those habits of mutual help and courtesy, that plantation of delightful remembrances of innocent sports and rambles in the field, or that acquisition of ready tact in all household and rural industry, which are the distinguishing features of a good practical home culture.

Prisons of high stone walls and barred windows, where hundreds of young inmates are congregated with nothing useful for head or hands to do ; or else working in large squads, at some undiversified employment, under the watchful eye of armed men, without the cheering word or sympathy of woman, acting and feeling as a mother, sister or companion, or the wise counsel and example of men acting like fathers, brothers, or friends—such places of detention and punishment, are giving way to farm, reform, and industrial schools where young criminals, or those who would soon become such in a majority of cases, the neglected and wretched outcasts of tainted homes, the offspring of vicious and intemperate parents, or the fatherless or motherless boys who commenced their downward career by committing petty thefts to keep life together, or under the influence of bad companionship, and of temptation too strong for their neglected moral culture to resist, where such children are subjected to kind domestic training, to watchful guardianship, and are treated with a long suffering forbearance, while they are acquiring the habit of useful occupation in the workshop, or farm, and are getting rid of their evil impulses and irreg ular habits, in the round of duties and employments of a well-regulated household.

These rural and industrial schools, especially on the continent of Europe, constitute an interesting class of educational institutions. They are of two kinds: 1. Asylums and houses for pauper, orphan, deserted, and morally endangered children, who are destitute of that education supplied by the common relationship of the family; 2. Correctional and reformatory schools for children and young persons convicted of crime, or acquitted only as having acted without knowledge, but detained under a certain age for the purpose of being instructed and trained to some useful occupation. In all of them, farm and garden labor is the basis of all industrial instruction; trade and handicraft are recognized and provided for, but are deemed of secondary importance except in a limited number of cases.

The sub-division into groups of families is an essential feature of the reformatory discipline in the institutions designed either for young criminals or morally endangered children. This organization in families, with a trial class or section of six or eight of the best behaved pupils who are allowed more liberty than the rest, and are entrusted with special duties, and into which the new comers are admitted until they can be properly classified, facilitates supervision, fosters a kindly emulation, and permits the application to each inmate of that sort of care and management best adapted to the character and disposition of each, but fitted to prepare them for a life of honest and useful industry in the great world without.

In those which have been most successful—successful from the start, and without any interval of failure, teachers and assistants have been employed who have been attracted to the work, not by mercenary motives, but by a true Christian spirit, and have been trained up to understand thoroughly all the details of the moral, social and industrial system adopted for the reformation of young criminals.

The two institutions which are at once the pioneer and model Reformatories of Europe—the *Rauhen-Hause*, (Rough House,) instituted by T. H. Wichern, at Horn, near Hamburgh, and the Agricultural Colony, *Colonie Agricole*, at Mettray, founded in 1839, by Frédéric Auguste Demetz, then a judge of the Court of Appeal, at Paris, and Viscount de Courteilles, a gentleman of wealth and high social standing—are founded upon religion, without which M. Demetz declares, it is impossible for such institutions to exist, and are bound together by the bond of family principle, and sustained throughout by the constant practice of order, self-restraint, obedience and industry.

To a great extent on the principles and after the model of these institutions, the great work of reformatory education is now going forward all over Europe. During the late Industrial Exhibition in Paris, a convention of persons engaged or interested in Reformatory or Charitable Institutions was held, before which M. Demetz read a paper on the Agricultural Colonies [as these reformatories are called] of France, which we copy from a translation in the Irish Quarterly Review, for March, 1856.

Report on Agricultural Colonies, read at the International Meeting of Charity, by M. Demetz, Honorary Councillor of the Imperial Court of Paris.

Agricultural colonies may be divided into two classes according to the nature of the population they contain. Establishments under the first head are open to orphans, to deserted children, and sometimes to poor children; those under the second, contain young detenues. Some of these asylums, very few in number, however, may be considered as of a mixed character, and receive indiscriminately, orphans, deserted children, and young detenues.

The idea of occupying in labors of husbandry, children whom desertion, evil disposition, or bad examples, expose, without defence, to the dangers which surround them in the great centers of population is one of long standing. The moral influence of agriculture was recognized at an early period—antiquity proclaimed it by the mouth of Cato: "He who tills the earth," said this sage, "thinks not of doing evil." The laborer, it is true, receives but a small salary, but he knows neither the excitements which beset the *ouvrier* of the cities, nor the expensive habits which swallow up, and render useless, a larger remuneration, nor those frequent failures of employment which so often expose him to a destitution very indifferently provided for, owing to his want of forethought.

It is to the charitable efforts of Pestalozzi that we owe the foundation of the first agricultural colonies. In 1775, this excellent man opened at Neuhoff, in the canton of Argau, for poor and deserted children, an institution of which husbandry and the employments connected with it formed the basis; but his establishment, always surrounded by untoward circumstances, successfully removed to Stanz, to Ber thond, and finally to Yverdon, could nowhere find the conditions of a prosperous existence. Fellenberg, the friend of the poor, followed in the foot steps of Pestalozzi, and adopted his views. He was more fortunate than his predecessor; the institution which he founded in 1779, at Hofwyl, near Berne, saw prosperous days, and shortly after, Vehrli, who was trained in his school, gave an impulse of skill and energy to those institutions of which we are now treating. At the present day they are spread all over Switzerland, and there are few cantons which do not possess, at least, one. Among them it is only just to mention the school of Carra, which owes its existence to Vehrli, and dates from 1820; the colony of Bachtelen organized in 1840, by M. Kuratli, and later still, that of Garance, of which M. Aubanel laid the foundation, and which he has not ceased to aid and support by his great experience.

England followed close on Switzerland in this work of regeneration. In 1788, the Philanthropic Society attempted to initiate a penitential colony, the success of which was unhappily of short duration. In 1820, an asylum was opened at Stret ton, which has recently ceased to exist; and at an epoch nearer to our time, the English government established the penitentiary of Parkhurst. Latterly, many private institutions have been founded to meet the same wants, and among others, Red Hill, to which we can hardly give all the praise it deserves.

The colonies of Holland are well known; our notice of them will be brief. It was in 1818, that General Van Den Bosch, laid the foundation of the 'Netherland Society of Beneficence,' and collected adult mendicants and vagabonds into its vast agricultural asylums. Two years after, in 1820, destitute children and orphans were admitted into the institution of Veenhunizen. If the Netherland Society has not produced all the good effects which were at first expected, we must not forget that it was the first to direct attention to the means of relieving the unfortunate, and that from its origin to the year 1848, it has supported and sheltered no less than 49,000 individuals.*

The colonies of Belgium did not, in the beginning, present any more favorable results, but since that time this state of things we know is changed, and among the institutions which are highly successful at this day, we may venture to name Ruysselede under the admirable direction of our distinguished fellow-laborer, M. Ducpetiaux, and which may be considered a model establishment.

In 1838, when we proceeded to the United States for the purpose of studying the penitentiary system, there were, in that country, only some agricultural *ateliers* for the reformation of the young, and these were on a very confined scale.

The first agricultural colonies founded in France, are those of Neuhoff and Mesnil Saint-Firmin; both date from 1828. The first is a small Protestant establishment which has never exceeded very humble limits, but which has not done less good, notwithstanding. The second was organized by the zeal of the worthy M. Bazin, one of our most learned agriculturists. At first he received the children of the poor, but their destitution was so extensive that he was obliged to give up this class of individuals. Under these circumstances the Society of Adoption for orphans and foundlings, which is at this day in prosperous action, was founded in 1843. These attempts have been successful; we must, however, bear in mind that it was in 1839, a new era of extension and progress commenced for agricultural colonies. In that year an industrial and agricultural establishment was organized at Marseilles, by M. l'Abbe Fessiaux, to whom that city is indebted for many other works of charity; and also the institution of Mettray, founded by the Societe Paternelle under the presidency of M. le Comte de Gasparin. These are reformatory colonies intended for young criminals, and the first which have been established on a large scale in this country.

In order to estimate the results produced by these institutions, it is necessary to consider the evil state of things they were intended to remedy.

Prior to these establishments, the child who was pronounced 'not guilty' was remanded to prison, and, though confined in a quarter separated from the other detenues, 'tis true, was subjected to the same regimen as the most hardened prisoners. In the interior of a prison he could be taught none but a handicraft calling, which obliged him at the end of his confinement to go swell the working population employed in our manufactures, and share its vices and dangers. These children, mostly of a feeble constitution, ended by falling ill in the vitiated air of the workshops of our prisons. They also proved unfit for military service; and 'the tribute of blood,' as it is called, the heaviest of all tributes, fell on the good son who was the honor of his family, and oftentimes its only stay.

Life in the fields supplies a remedy for all the evils we have specified. Vigorous exercise in the open air strengthens the body; and the spectacle of the beauties of nature excites in the human heart a profound sentiment of admiration and gratitude toward the Creator; a poet has said, 'God made the country and man made the town.'

The most correct opinions have at all times met with some opposition, and the system of correctional colonies can not expect to escape censure. 'It is only necessary,' it is said, 'to have infringed the laws, to ensure your sympathies; and among so many children that have a just claim to the succor of your charity, you always select those who merit it the least.'

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* We can not pass over in silence all the good which is being effected at the present time in an agricultural colony, founded in Holland by the efforts of M. Suringard, and to which this genuine apostle of charity has been pleased to give the name of the "*Netherland Mettray.*"

Now in the first place we assert, that the object of colonies founded for young criminals is not to assure them a condition of comfort, but to prevent them from further depravation. It is a serious mistake to believe in the pleasures of agricultural life; it is on the contrary particularly severe; it obliges the husbandman to brave the inclemencies of the seasons, and to endure the fatigues of long and painful labor. In winter he has to struggle against the severity of cold; in summer against exhaustion, the result of excessive heat; hence we so often see field labor deserted for handicraft work. In proof of our assertion, we can affirm that we have very rarely met with a child just brought to the colony from the *maisons centrales*, who at first has not expressed a wish to return to his former condition.

'But,' it is said again, 'these children are better treated in those asylums than in their own families.' Gentlemen, there are families (such as these) where they perish of hunger! Let us deplore the miseries which we can not relieve, and not be instrumental in re-producing them. For the rest, let us listen to the words of the legislator in order to fix public attention on the regimen which should be adopted for the population of agricultural colonies.

These are the terms in which M. Corne, the reporter of the law concerning young detenues, expresses himself:—

"Who, in general, are those children that even before the age of discernment, have offended, and incurred the rigor of the law? They are for the greater part, young creatures destitute of any kind of home education; some are born of miserable parents who have trained them to beggary, and very often even to theft and robbery; others, sprung from parents who are regardless of their parental duties, or entirely absorbed by their daily occupations; or who let their children wander about the streets, and who, in default of moral restraint, abandon themselves to the most pernicious influences. What is wanting to these unhappy children? A home which will imbue them betimes with honest feelings and moral and religious aspirations.

"It is then 'a home' which is necessary to confer on them, in the bosom of an establishment where just and benevolent teachers know how to join to strict regularity of discipline, that goodness of heart that attracts and attaches, and that exalted morality which gives a relish for integrity, and confers a power of contracting honest habits.

"Now what is wanting in a moral and physical point of view, to those children to whom idleness has given an evil bent, whose passions have been developed at an early age, to whom their parents, subject themselves to all kinds of misery, have communicated a vitiated being, a constitution infected by the germs of serious maladies? To give a right direction to their passions, to restore calmness to their minds, and imbue them with amiable desires and pious aspirations, to purify their blood, and impart robust health to their bodies, they need air, life in the open fields, peaceful habits, and the strengthening labor of the husbandman."

Here we find the legislator proclaiming the advantages of field labors for the young detenues, and urging the founding of agricultural colonies in order to receive them. Even before the establishment of colonies, improvements had been introduced, which we feel it our duty to particularize.

M. Lucas, inspector general of prisons, had conceived the benevolent idea of promoting the foundation of a Patronage Society at Paris for juvenile offenders. It was definitely established in June, 1833, under the direction of a man as eminent for merit as charity, M. Beranger (de la Drome.*)

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* See the report of M. Lamarque on the Societies of Patronage, in which will be found arranged in a most complete form, the history of these institutions (*Annales de la Charite, Juin*, 1855.)

This work produced a considerable reduction in the number of the relapsed. Among the means employed, we may particularly mention conditional liberation.

The placing out of the liberated detenues was not without its difficulties. Besides that they had rarely acquired in their business a degree of skill sufficient to place them in the class of good workmen, they inspired the heads of *ateliers* who were acquainted with their antecedents, with not unreasonable mistrust; for those did not feel themselves qualified to subdue the vicious inclinations or evil dispositions which might reappear in their young auxiliaries, freshly liberated, and of whose perfect reformation there was cause to doubt.

The Society of Patronage obtained permission from le Ministre de l'Interieur, that the young detenues who during their sojourn at the penitentiary of Roqutte had exhibited proofs of amendment, should be put in a condition of provisional liberty, but on this understanding, that at the first serious transgression, it should be legal to recal them on a ministerial order, without any judicial formality, and at the simple request of the Society of Patronage.

This measure has produced the most satisfactory effects. In consequence of it, places have been more easily obtained, employers less backward, and apprentices more submissive. It also enables us to repress certain blameworthy actions which unhappily elude the authority of magistrates and public punishment. For instance, with us, drunkenness is no excuse when it leads to the commission of an act declared culpable by the law, but in itself it is not considered an offence; and there are many other acts which outrage morality, but yet are unpunishable by laws.

Who but can feel, after this simple explanation, the salutary influence which the system of provisional liberty might exercise over adult criminals, instead of absolute pardons which those who profit by them too frequently abuse.

The following is what we thought expedient to say on this subject, in a work published by us in 1838, on the penitentiary system.

" The work of reform will not be complete till we can assure to the discharged prisoner a means of turning his good intentions to account, and can offer sufficient guaranties to those persons who consent to employ him.

The number of individuals, who have been liberated and have again relapsed, is considerable; but we could hardly expect it should be otherwise. In the present state of the law, the transition from restraint to freedom is too abrupt; and if we desire that the newly-freed man should persevere in the good resolutions which he has adopted. he must make a trial of liberty under certain restrictions.

Provisional freedom, substituted in certain cases for absolute pardon, can alone furnish a hope of solving a problem hitherto considered insoluble. It is, in fact, the sole means of arriving at a composition between the unhappy, but legitimate mistrust of society, and the necessity of procuring employment for those with whom misery and need are sufficient to annul the effects of the best reformatory system, and who, despite amelioration acquired with labor, will be infallibly thrown back on crime by the rejection of society, if they can not find means to support existence."

England has already adopted this measure; but we have reason to fear that up to the present time, its application has not been made with all the precautions which might be desirable.

We have been made acquainted with a similar project, elaborated with the greatest care, which is to be submitted to the approbation of the legislature in Belgium, and from which there is reason to expect the happiest results.

The Society of Patronage which had already done so much to improve the moral condition of young detenues, did not consider its task as yet accomplished; it procured the nomination of a commission in order to collect all the documents calculated to produce a still more satisfactory state of things. The members of the society were pleased to request us to make part of this commission; and from the beginning, all those who composed it, when seeking the means of reforming juvenile offenders, were unanimous in the choice of agriculture. Indeed, if it is necessary as we have above hinted, to employ in field labor orphans without family or means of support, how much more necessary still, is a country life for those who have already given way before the evil influences which accompany a residence in large towns.

But as soon as the commission determined to pass from theory to practice, and to arrange a plan for an agricultural colony, their embarrassment commenced, and they felt that they were not prepared with sufficient knowledge on the subject. They commissioned two of their members to study on the spot, the Colonies of Belgium and Holland, and they selected for this purpose, the late lamented Leon Faucher and myself.

This took place about eighteen years ago. It was known that the experiments made in the countries above mentioned had not been successful. The Dutch colonies were dragging on a languishing existence, and making enormous sacrifices for a very indifferent return; and the Belgian colonies exhibited still more disastrous results. So we did not proceed to these countries to look for models, but we were in hopes to learn some useful lessons. We are no less indebted to him who indicates hidden rocks, than to him who points out the safe channel.

From the first we were aware of an important fact. All the colonies had been established on heaths, or on barren land. The founders seemed to have had it more at heart, to bring the land into cultivation than to win the worker over to the love of labor. This idea of the reclaiming the soil by the arms hitherto useless, employed in colonies, we acknowledge to be very seductive, and at first sight to appear very just; the culture of a stubborn soil by such means presents an appropriate penal picture; it makes men useful whose lives hitherto have inflicted only trouble or danger on the State, and on whom it is but reasonable to impose the severest labors. We should have nothing to oppose to this theory, if the question merely concerned men who have merited severe punishment, and if the colonies of which we speak had their punishment alone in view; but it seems to be forgotten that their principal object is the moral transformation of the unhappy beings whom they receive.

We must expect failure, if we entrust bad land to ill-disposed laborers; and we have no hesitation in believing, that the sterility of the soil has been the chief cause of the ill success of the colonies of Belgium and Holland.

In order to create the habit and relish of labor, in those whom dissipation, indolence or laziness has reduced to utter destitution, it is essential that this labor should, at least, offer some attraction; and that prompt and satisfactory results should recompense and encourage their ill-sustained efforts. And how often may we not apply these considerations which are true as far as adults are concerned, with still more justice to the child whose wandering imagination can neither foresee nor patiently wait, whose ardor so easily roused is as easily depressed, and whose entire future is limited by 'to-morrow!'

"To deserve to be sent here," said a Belgian colonist to me one day, with an accent of despair, "one need have killed his father and mother; there is not a blade of grass which has not cost a drop of sweat." Now does any one really believe that it is by exciting repugnance, such hatred, we can hope to win over long resisting, obstinate natures to the love of labor?

The administration seems to approve the opinions we have just now advanced, and we have taken care not to overlook so important a testimony. The government has lately resolved to found penal colonies in Corsica for adults; and too much praise can not be given to such a measure. It has already initiated this useful project, and we have seen, with very lively satisfaction, that it has selected lands remarkable for their fertility, for an experiment so worthy of public attention.

To return to our researches in Belgium and Holland. We were not long in confirming our previous opinion, that we had nothing to learn from the establishments of these countries. M. Leon Faucher was obliged to return to Paris, and I was left alone to continue the search. This was to terminate at Hamburg, where I do not hesitate to say that I found the solution of the problem which we had in charge to study. It was near the village of Horn, in a fertile and picturesque country, and on the slope of an eminence which overlooks the fine valley of the Elbe and the Bill, that I had occasion to visit the reformatory school called the Rauhen Haus.* I will not pause to describe this new celebrated establishment, and which, since my visit, has received considerable additions, I will content myself with pointing out its principal features.

It was founded toward the end of 1833, by the excellent M. Wichern, to receive young children whom vicious habits were threatening to pervert, or had already perverted. The skilful founder had sought the means of reform in the "*esprit de famille.*" He endeavored to excite in these young hearts, those sweet and healthy emotions which home influence calls forth and which had never been felt, or had been forgotten by those wretched children.

The colonists were divided into groups of twelve, each group being called a family. This title was justified by the bond of intimate affection and kindliness which had been established among its members. To each of these families was appointed a chief, or rather guide, whom the children called their father. Each family inhabited a separate little house, constructed by the hands of its own members, and divided from the neighboring one by gardens or orchards. Four existed at the period of my visit; they formed as it were, a little hamlet, and had no communication with each other but such as was required by the exigencies of the institution.

The discipline of the colony was firm and severe, and yet we are bound to say, tempered by paternal tenderness. Moral reforms was its object; energetic, persevering labor, and at the same time, a profoundly religious education were its means. Daily memoranda recorded the conduct of each child, his progress, or his backslidings; the affectionate solicitude of the chiefs did not interfere with the rigor, still sometimes necessary, of a system which was essentially correctional, and no one but an eye witness can imagine the depth of the sympathy which bound these poor pupils to the parent colony, after they had become honest members of society.

Thus we see that the basis on which the colony of Horn was established, and to which it owes its wonderful success, is the family system.

It was not the first time that this excellent means of reformation had been employed, and in every instance it had been followed by happy results. The agricultural and reformatory school founded in 1788 by the Philanthropic Society in London, had successfully adopted the same organization; and on going back a space of nearly fifty years to that institution, incomplete, doubtless, but admirably conceived, we find singular and striking analogies with the establishment of Horn. The Swiss colonies which have survived and prospered, had also effected the division of their pupils into small distinct groups. They had even extended farther the resemblance to the real family, by placing at the head of each group, a female housekeeper along with the chief; and, moreover, they had no hesitation in admitting children of both sexes. They report that this arrangement was not attended with any inconvenience.

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* A particular account of the Rauhen Haus, or Redemption Institute, of M. Wichern, at Horn, near Hamburg may be seen in Barnard's National Education in Europe. H. Cowperthwait & Co., Philadelphia.

The examination of the establishment of Horn, and the excellent results which the institution has produced, furnished us with the information we were seeking; and we could no longer entertain a doubt as to the efficacy of the principle which had presided at its formation. Division into families then, it appears, should be the fundamental principle of every penal and reformatory colony; and we are happy to see that this conviction, which takes stronger hold on our judgment from day to day, is making increased progress among our public writers. Unhappily, up to the present hour, these convictions have scarcely advanced beyond theory, so far as France is concerned.

In December, 1849, M. Corne, acting organ of a commission named by the legislative assembly, "looked on a division of the children into small groups as the most certain element of their moral regeneration." Those men, in the different states of Europe, who have given themselves to the study of these questions all profess the same opinion.*

The division into families renders superintendence, at once, more easy, more active, and more zealous; more easy, because it extends over but a small number; more active, because it makes all the responsibility rest on the head of one person only, whose authority is well defined, and whose duties are exactly prescribed; more zealous, because it produces in the minds of the superintendents, sentiments of sympathy and benevolence, under the influence of this responsibility, and of a life spent in common with their charge. The influence of the division into families is not less salutary for the young colonists; the authority exercised being neither imperious nor oppressive; they become attached on their part to the master who loves them, and whom they learn to regard as a confidant and a friend; they allow themselves more easily to be influenced and convinced, and, while discipline loses none of its vigor, education finds in this mutual affection a lever of incalculable power.

Besides, shall we count as nothing, that not only harmless but salutary emulation, which a multiplicity of families excites? In a large establishment, in the midst of a numerous population, common interests are few and weak, unless unhappily an *esprit de corps* should arise among the colonists, inspired by a feeling of opposition to their chiefs. But that spirit of rivalry which springs up between the different families, produces nothing but advantages, and creates energy only for good.

It has been objected that the construction of isolated buildings costs more than a general one, and that too large a staff of officers is required for the application of the system. A preference has consequently been generally given to old houses; so that, in some degree, the stones have made the law, rendering the execution of the programme sketched out, subservient to the locality. Thus it has frequently failed in its most essential parts.

In our times, an unhappy tendency prevails to economise in the salary of officers when the education of children is concerned. Moral force can only be efficacious when we grasp as it were, body to body, heart to heart, intelligence to intelligence, him whom we wish to gain over to the love of good.

We must engage in *single combat*, so to speak, and that such great efforts are necessary we should not wonder since we must acknowledge, that with all of us in a greater or less degree, our natural tendencies incline to evil. If in point of education we have gained but little up to this hour, it is because we have substituted disciplinary for moral action. We may easily manœuvre a regiment by the word of command, a crew of sailors by the blasts of a whistle, but these means would ill suffice to render them moral agents.

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* See, as regards public men in England, besides the testimony of Lord Brougham cited before, the opinion which he expressed in so remarkable a manner in the House of Lords on the 11th of May, 1854. See, also, the speech of M. Adderley in the House of Commons on the 1st of August, 1852.

The German Reviews have blamed the directors of Mettray, for having raised the number of children composing a family to forty, and then entrusted its guardianship to one sole chief; in some respects they are quite right. They object that Providence has not, in the order of nature, permitted a family to attain to so high a number, although the heart of the father, and above all, that of the mother, which may justly be called the masterpiece of nature, watch over the education of the children. Those persons who do not reckon in the account, the moral results obtained at Mettray, find its system of education even now too costly; though, of course, by augmenting the number of officers, still more considerable expenditure must be incurred. We must, unhappily, make concessions to public opinion, however blind it may be in some cases. There are but few who comprehend this great truth, that in the matter of political, and much more, Christian economy, there are profits which ruin, as there are losses which enrich.

After my visit to Horn I had no need to prolong my journey. The studies of a life had convinced me that agricultural occupations, united with a good moral and religious education, could alone rescue from a life of disorder and evil deeds, youth already engaged in a career of vice. The study of the Dutch and Belgian institutions had shown me that a sterile soil can produce none but sterile works; the examination of the establishment founded by M. Wichern had taught me that 'the family' system was the path of safety for the regeneration of (evil) man. Nothing remained now but to set to work.

My own strength doubtless, would not have sufficed for such an enterprise, but Providence came to my aid, in renewing my acquaintance with an old schoolfellow, M. le. Vicomte de Courteilles. He adopted my views, promised his services, and went so far as to offer his estates upon which to found the institution we had resolved to establish together.

We did not conceal from ourselves, when putting our hands to the work, that the care of forming men's minds, and turning them from evil to good, should not be entrusted to the first assistants that came to hand. This important ministry requires trained minds, a sincere self-devotion, and a morality above suspicion. There is with us no lack of ideas, but rather of men capable of putting them in practice, especially when these ideas are of serious import.

Being convinced of this truth, we resolved to establish, in connection with the colony, even before a single child had been intrusted to us, a special school, where youths of respectable standing, and of a truly Christian spirit, might be trained to become, by and by, the chiefs of our families.

It is to this foundation that we must attribute the prosperity of Mettray. We shall be excused, we trust, for not having passed it over in silence. This school has been daily improving since its institution, and among the excellent pupils which are sent forth from it every year, some, engaged with ourselves, perpetuate the good traditions of the colony; others spread them abroad, and being sought for by charitable institutions, they render valuable services to establishments similar to our own.

It was with the aid of such auxiliaries that Mettray was founded. On the 22d of January, 1840, it received its first inmates.

Between that and the present date, more than fifteen years have past. Many successful efforts have been made during this period; much progress has been effected; many establishments have been founded, which are now prosperous, and spread blessings around them. None can sympathise more warmly than we do, in the hopes which the development of agricultural colonies appointed to receive orphans and foundlings, is calculated to call forth.

Let us trace in a few words, the history of that branch of legislation which regulates these institutions, and indicate the principal traits, at least, of the important act of the 5th of August, 1850.

Before speaking of this law, we must mention the instructions issued on the 17th of February, 1847, which confided the patronage of liberated detenues to the municipal authorities, and raised some rather complicated questions into the discussion of which it is not here possible for us to enter.

The law of the 5th of August is of paramount importance; it is in some sort the charter of penal agricultural colonies. It embraces in its regulations, young children detained for correction, by desire of the father,* children sentenced for crimes and offences, and, finally, children acquitted by the application of Article 66 of the Code Napoleon. It proclaims the necessity of subjecting all to a moral, religious, and professional education.

Two principles pervade this law, principles to whose profound wisdom we can not pay too much respect, and from which we can not depart without compromising those cherished interests which it is intended to protect. We find them in the articles 3, 5, and 10.

The first consists in the employment of young detenues in the agricultural labor and the principal branches of industry connected with it.

The second proclaims the frank and cordial adoption of the co-operation of private establishments. The law reserves to these last a delay of five years, during which they can prepare and perfect the founding of penal colonies.

It is only in the event of the insufficiency of private establishments, that State colonies are to be founded, as is expressed in the last paragraph of Article 10. "If the total number of young detenues can not be placed in private establishments at the expiration of five years, they shall be provided for by the foundation of reformatory colonies, at the expense of the state."

The system adopted by law, thus depends on the existence of private colonies; it is from these colonies that the state demands the moral education of the young pupils whose guardianship it has undertaken. In itself it has no desire but to complete them, or supply their insufficiency if such should exist.

This large and truly liberal spirit of the laws was no less manifest in the short discussion to which it gave rise. A Deputy had expressed his opinion that the state ought not to confide to any (private) person, the education and reformation of young detenues, and that the law should authorize none but public establishments. The commission hastened to protest against such a system.

'The Law encourages charity,' was its answer; 'it recognises its power, and hopes much from its influence.' On the other hand, the government eagerly forwards its views; and it was on the formal proposition of M, le Ministre de l'Interieur, that the assembly raised, to five years, the delay accorded for the operation of private charity, for which two years only had been asked by the commission.

The course taken by the administration merits the greatest praise. To appeal in this manner to the knowledge and co-operation of all, shews a sincere desire to provide a happy future for the country. Oxenstiern has said, '*On the good training of youth, depends the prosperity of the state.*"

It must be acknowledged that education is a difficult and complex undertaking; perhaps the most difficult of all. It is a problem capable of receiving different solutions; and it has this peculiarity, that every one of these solutions is the best in some particular case. The meditations, the studies, and the experience of a great number of peculiarly gifted men, and the trial of many different methods, will not be found superfluous in fructifying this greatest of all sciences, to produce a race of good men.'

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* The law of France empowers a parent to send (under certain conditions) an intractable child to prison.—Ed.

At the same time that the administration was making its appeal to the devotedness of individuals, and calling on them to come to its aid in this great work of penitentiary reform, of which the education of young detenues may be considered as the starting point, it was also itself at work on this; and co-operation was the more desirable, inasmuch as the private establishments were far from able to contain all the children of this class, whose number is ever on the increase; we shall have occasion to return to this subject. An agricultural colony was then annexed to each of the maisons centrales of Loos, Gaillon, Fontevrault, and Clairvaux. These colonies have realised all the good that was expected from them.

While a system calculated to reform young detenues was thus being established in France, either by administrative action or the intervention of the legislature, the public authorities of England were giving the most serious attention to these important questions. The wound which, with our neighbors, we sought to heal, was no less deep than that whose enlargement we were striving to prevent; and that country where so many improvements have been effected, could not hesitate to follow in the path upon which we had entered.

A law of recent date, and which was passed on the 10th of August, 1854, authorises and even calls upon individuals to found agricultural colonies. It seeks to turn to use, with more steadiness and unity of effort than has hitherto been done, those private institutions which have been founded for this object, and authorises the Minister for the Home Department to confer on these establishments which after inspection are judged worthy thereof, the title, *Reformatory School.*

We do not feel it necessary to enter on a very close examination of this act, framed by the way under the influence of French legislation; but one of the clauses which it contains, appears so conformable to equity, and so fit for imitation, that we can not pass it over in silence: we speak of the pecuniary responsibility which it imposes on the family of the delinquent.

The statesmen of 'practical' England have considered that it was not just to exonerate parents from the burdens imposed on them by the laws of nature, especially in those cases where the bad conduct of the child, as is only too often the case, is the result of the bad example of the father.

Thus the English, like the Belgic legislature, has decided that a sum not exceeding five shillings per week may be exacted by way of fine from the family of the young delinquent during the period of his detention.

Nothing can be better adapted than such a measure, to disappoint those guilty calculations which sometimes induce unnatural parents to violate the most sacred of all human duties.

The increase in the number of young offenders in France ought to make us desire more than ever, the application of this measure which we have thought it our duty to point out.

But let us conclude what we have to say concerning the French law.

This law appropriates (Art. 2) special and distinct quarters in our jails to the special reception of young detenues of every class—it creates two orders of reformatory establishments; penitential colonies for the special reception of young delinquents acquitted under article 66, but intrusted to administrative guardianship (Art. 4 and 5) and correctional colonies (Art. 10) established by the state either in France or in Algiers, for young offenders condemned to an imprisonment of more than two years, and also for young detenues, from reformatory colonies, who may have been declared insubordinate.

Let us be allowed here to express our regret that by an interpretation little in accordance perhaps with the general spirit of the law, government has authorised the reception in the same colonies, of young detenues condemned under Art. 67 of the penal code, to an imprisonment of more than six months, and not exceeding two years, with children declared not guilty, and acquitted under Article 66. This confusion which, at first sight, seems of no importance, always produces inconveniences of more than one kind. In the first place, it perplexes the comprehension of the acquitted young detenue, in whose understanding it upsets all notion of justice; he is astonished that the law, while declaring him innocent, imposes on him a detention of four or five years, while it retains, generally for a very short period only, him whom it recognises as culpable. We will only add, that this tends to maintain in the public mind, as in the minds of those who are eventually called on to use the labor of the liberated convict, prejudices very hurtful to his interest.

The active administration, it is true, has done all in its power to counteract that which we must be permitted to call a vice of the law. The magistrates convinced of the evil of mingling in the same place, children of different degrees of depravity, rarely sentence under Art. 67 of the penal code. On the 31st of December, 1852, the number of young detenues amounted to 6,443, and of this number, 197 only were convicted under articles 67 and 69.

In stating so high the number of young criminals, which in 1837 was only 1,493, we can not dissemble the melancholy feelings with which we must necessarily write such a revelation.

But let us take comfort: 'this progression,' as M. the Minister of the Interior says in his last report, 'does not imply a corresponding increase in juvenile crime. The existence of penitentiary establishments intended for the young, encourages and multiplies decisions from which tribunals would have recoiled at an epoch when their life in a prison exposed the young detenues to intimacies and influences worse than those outside its walls.'

In concluding our review of the laws which exercise so great an influence over agricultural colonies, we must direct public attention to one measure which has hitherto escaped notice, notwithstanding its great importance.

The legislator while adopting the principle of agricultural colonies for young convicts, ought to have equally taken into account those children whose vicious inclinations, or obstinate characters stubbornly resist all instruction, all efforts of domestic discipline, and who, without having been guilty of an infraction of the penal laws, do not the less deserve severe punishment. We speak of children detained at the request of the father, under articles 375 and 376 of the Civil Code.

If we wish to achieve a reform as complete as it possibly can be, we should come to the aid of youth whatever be its social position, and combat its evil propensities wherever they manifest themselves.

In France, detention under the head of *correction paternelle* is the only means of repressing the transgressions of youth. But Paris alone offers, and there but in an insufficient manner, a house for the reception of such children, which holds out some guarantee to the heads of families.

In the provinces there exists no establishment of this kind. Children under age, whom their parents might wish to correct by withdrawing them from the evil counsels and evil examples which are perverting them, would there be mixed pell-mell with the suspected and even the convicted; thus they would be exposed to greater dangers than those from which it is wished to guard them. What father of a family would venture to give to his son, for companions, malefactors and others, subjected to penal treatment.

The inexpediency of resorting to this mode of correction is so fully recognised, that there is no family in easy circumstances, who would not reject such a means; and there is scarcely even a poor but honest family, who would not hesitate to use it. Is it not indeed to be feared that he who had once been obliged to pass the threshold of infamy, would regard himself as disgraced forever?

Rich families frequently send on long journeys and at great expense, sons of whom they have cause to complain; but this plan has often only the effect of substituting one kind of dissipation for another. By this course studies are suspended; the habit of application is lost; the young people meet abroad the temptations from which they were sought to be rescued at home; and they yield to them with the less reserve, as they feel themselves now free from all surveillance; they begin to entertain ideas of independence and insubordination; and after having brought trouble into their families, they, later in life, introduce disorder into the state.

The legislator has imagined that he could remedy the deplorable state of things which we have just described by authorising the transmission of children from the parental jurisdiction to the agricultural colonies, but we fear that in this instance he has not discovered the true remedy.

By the terms of the Articles 375 and 376 of the Civil Code, a child under 16 years of age may be detained one month, and the youth from 16 to 21 years old, six months. We must then, if we wish to produce a salutary effect upon the mind of the young offender in so short time, employ a species of discipline which will *punish fast*, if we may be allowed such an expression.

Besides, the discipline of reformatory colonies to which young criminals are for a long time subjected, can scarcely present a sufficiently repressive character; the children in these establishments enjoy a certain degree of liberty; field labor would appear, especially to boys, much to be preferred to the study of Latin, for which the greater part entertain a profound aversion. Mettray affords, at the present time, a case in point. One of our colonists not being able to obtain from his parents permission to leave school, did not hesitate to set the building on fire. Moreover, this state of mixed society exposes the children to form connections which would sadly compromise their future prospects in the world of the higher classes.

We do not hesitate to say, that solitary confinement only can act with efficacy in such cases. It is necessary to have witnessed its effects in order to form a correct idea of the happy influence which it obtains over the character. A complete transformation is effected in the individual submitted to its operation. As he can not procure either indulgence or amusements, nothing is at work to remove from his mind the exhortations and counsels he has received. Reflection is perpetually holding before his eyes the picture of his past life. In solitude there is no place for pride, for self-love. The child is obliged, in his own despite, to enter into himself; he no longer blushes for yielding to the promptings of his conscience, which has been so justly called the 'voice of God.' Little by little, he becomes accessible to religious sentiments; labor now becomes an occupation for him, and very soon a pleasure; he gives himself up to it with ardor; and that which he has hitherto considered as a painful task, becomes a comfort, even a necessary, so that the greatest punishment that can be inflicted on him is to deprive him of employment.

The short period of his detention dissipates whatever fears the solitary system may excite in the minds of some individuals.

I have been enabled to witness these effects of solitary confinement, which I have just described, at Mettray, where children under paternal correction have been sent for some time past. A penitentiary constructed under the direction of M. Blouet, architect, entirely on the model of that of Philadelphia, is now specially set apart for this class of individuals.

The chapel is so constructed that the children can assist at the divine office without being able to see each other. Every boy has two cells at his disposal; one in which he sleeps, the other in which he is occupied, either in manual labor or in his own improvement. The vicinity of the Lyce of Tours enables us to procure for the children, such professors as parents in easy circumstances would wish to give them. In this way their studies are not interrupted, and the walks* afford healthful exercise. All these advantages, which we have been enabled to realize at considerable sacrifices, can not be obtained in the greater number of private colonies. Mettray is consequently an exception, and, elsewhere, the inconveniences we have pointed out, exist in full force. Such is the last objection we will allow ourselves to make to the law of 1850, of whose wise regulations in the main, as we said before, we can not speak with sufficient praise.

We have dwelt on the penitential colonies, and on the law which ratifies their existence, because they appear to interest us as much in their agricultural as in their industrial relations. To improve the laborer by the land, and to improve the land by the laborer; such is the immense advantage we derive from these institutions.

The reformatory colonies in France are twenty-three in number. They are subdivided into private colonies and colonies of the state."

To this admirable account we append a few extracts from a speech made by M. Demetz, at a banquet given to him at Birmingham, in 1855, by the promoters of the reformatory movement in England.

"The military discipline adopted at Mettray is this: the lads wear a uniform, and they march to and from their work, their lessons, and their meals with the precision of soldiers, and to the sound of a trumpet and drum. But, as the sound of the trumpet and the drum lead men on to perform acts of heroism, and to surmount the greatest difficulties, may it not reasonably be employed with the same object at a reformatory school, where, in resisting temptation and conquering vicious habits, true heroism is displayed, and a marvelous power of overcoming difficulties must be called forth ? A striking proof of the hold the system had obtained over the minds of the boys was given at the time of the revolution of 1848. France was then, from one end of the country to the other, in a state of anarchy, and all the government schools were in rebellion. At Mettray, without walls, without coercion, there was not a sign of insubordination; not a single child attempted to run away. It was in allusion to the absence of walls of M. le Baron de la Crosse, Secretaire du Senat, observed, 'Here is a wonderful prison, where there is no key, but the *clefs des champs!* If your children remain captive, it is proved you have discovered the key of their hearts.' During the revolution, a band of workmen came to Mettray with flags flying and trumpets sounding, and, meeting the youths returning tired from field labor, their pick-axes on their shoulders, thus addressed them:—'My boys, do not be such fools as to work any longer. Bread is plentiful; it is ready for you without labor.' The *chef* who was conducting the lads, and who behaved with the greatest calmness and tact, immediately cried, 'Halt! form in line.' The lads, being accustomed to march like soldiers, immediately formed. The *chef* then stepped forward and said to the men, 'My friends, you have learned to labor; you have a right to rest; but leave these lads; let them learn now, and when their turn comes they may rest as you do.' The men gave way, the youths marched home, and Mettray was saved—saved, as I believe, by our habit of military discipline. Had those lads been walking homewards without rule, like a flock of sheep, the men would have got among them, carried away one or two, and the rest would have followed; but, drawn up in line, they met the attack in one body, and thus it was repelled."

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* *Promenoirs.* Probably walks in covered galleries or in the open air with walls on each side.—Ed.

The London Times, in an account of M. Demetz's visit to the Philanthropic Society's Farm School, at Red Hill, the principal English Reformatory school, remarks:—His path has been difficult, and his obstacles numerous, but he has experienced such proofs of his success that he must feel repaid for all his labors and sacrifices. In such incidents as the following he finds his true recompense. A *colon* of Mettray, who has like so many of his companions become a soldier, was decorated on the field of battle for some act of bravery with the Cross of the Legion of Honor. This gift when conferred upon a person in humble life is accompanied by an annual pension of 200 francs. The soldier on receiving his decoration immediately sent 100 francs to Mettray.

M. Demetz being present on some occasion when a troop of soldiers were drawn up in line, one of them stepped from the ranks and flung his arms round his neck. The man had been a *colon* at Mettray, and, unmindful of spectators, thus gave way to the impulse of gratitude and affection.

We think the fact we are about to relate is even more striking; it bears noble testimony to the exalted spirit which animates the institution:—

"The other day there was too much reason to believe that certain pecuniary support would be withdrawn in consequence of the necessities of the war, to such an extent that the establishment must be wound up, and the further prosecution of it abandoned; whereupon the different *employes*, a body of young men from twenty-one to thirty-five years of age, not helpless creatures without resources, to whom half a loaf would be better than no bread, but men of tried ability and vigor, who could at any time command more remunerative employment elsewhere;—I say these young men waited on M. Demetz in a body, and offered to continue their services at half their salaries."

But this was not all. The *colons*, too, offered to add to their already long hours of labor, that their extra earnings might help to meet the difficulty. "They would do any thing," said both masters and wards, "rather than that Mettray should fall." God grant it never may!

Perhaps the greatest proof of the success of Mettray is the fact that the *colons* are proud of having been there. They are never abandoned, and may return if out of employment, or in sickness, sure of a hospitable reception provided only they are behaving well.

MM. Demetz and de Courteilles wished that the youths should consider Mettray in the light of a parent, and, in order to bind her children more firmly to herself, established, in 1843, an association, of which they themselves were the presidents. It is called the *Association des Fondateurs, Chefs et Sous-Chefs de la Colonie de Mettray*, and is composed of the directeurs as *presidents*, officers as *dignitaires*, and colons as *titulaires*. Any *colon* is eligible for admission who is twenty years of age, and whose conduct has been irreproachable for two years after leaving the colony. They are then presented with a diplome, which is printed on parchment, bearing the signatures of the president, secretary, and owner. At the same time they receive the symbolic ring of the association, with this device, among others, "*Loyante passe tout.*"

XVII. EDUCATIONAL MOVEMENTS AND MISCELLANY.

BAVARIA.

In the *Höhere Bürgerschule* for Jan. 1856, edited by Dr. Vogel and Herr Korner, there appears a Statement of the Educational Establishments of Bavaria, condensed from a complete statistical view of their condition in 1851–2, by Dr. von Hermann. From this, the following facts are gleaned.

TABLE I, is an account of the ACADEMY OF SCIENCE, which numbers 51 ordinary and extraordinary members. Its means are 12,057fl. from a Government appropriation, and 3,633 from a special reserved fund. A florin = 32 cents.

TABLE II. THE GENERAL CONSERVATORIUM OF SCIENTIFIC COLLECTIONS embraces 12 distinct collections, viz.: the Cabinet of Coins; the Antiquarium; the Observatory and Meteorological Institutes; Chemical Laboratory; Mineralogical, Geological, Zoölogical, and Paleontological Collections; a Botanical Garden, and an Anatomical Institution. The income of the Conservatorium of 48,116fl. is derived from Government appropriations.

TABLE III. PUBLIC LIBRARIES.—The Royal Library in Munich, in addition to 22,000 manuscripts, has 800,000 volumes; the University Library in Munich, 147,541 volumes; that in Würzburg, 100,000 volumes; that in Erlangen, 140,000 volumes. The public libraries (over 24 in number) in different departments have together 1,861,556 volumes and 33,219 MSS., not including the libraries of the Royal Ministers, the Gymnasia, &c.

TABLE IV. The ACADEMY OF PAINTING numbers beside, 1 Director and 3 *Docenten*, 10 Professors, 231 Pupils; of whom, 101 are Bavarians, beside 58 honorary and corresponding members, and 19 Government Pensioners. Its income is 53,524fl.

TABLE V. The CONSERVATORIUM OF MUSIC has 1 Director and 14 Teachers, 54 male and 40 female Pupils, with an income of 8,119fl.

TABLES VI–X, relate to the UNIVERSITIES. In 1852, Munich numbered 51 ordinary, 17 extraordinary Professors, and 30 Privat-Docents. Würzburg had 33 ordinary, 17 extraordinary Professors, and 3 Docents. Erlangen had 28 ordinary, 17 extraordinary Professors, and 12 Docents. The most graduation in the three universities is in the medicinal faculty, then in the philosophical, juridical, and theological. The receipts of the universities were 409,820fl.; the expenses 366,584fl.

TABLE XI, distinguishes the RELIGIOUS DENOMINATIONS of the students. In 1851–2, in the Lycea and Universities, there were 2,895 Catholics; of whom, 744 were theologians: 782 Protestants; of whom, 167 were theologians; 3 Reformed, 4 Greeks, 30 Jews, and 5 Mohammedans.

TABLE XII. In 1851–2, the seven LYCEA numbered 77 teachers, with 650 candidates. Their income is 96,760fl.; their expenses 76,056.

TABLES XIII–XVI, give the Statistics of GYMNASIA and LATIN SCHOOLS. In all (26) the gymnasia, during 1851–2, 1170 scholars applied for admission to the under class, of whom, 917 were received; 808 applied for admission to the upper class, of whom, 789 passed the examination. The 60 Royal Latin Schools numbered 462 teachers, 7,405 pupils.

Tables XVII–XXXIII, contain the Statistics of Special Schools. 1. The Forestry School, at Aschaffenberg. 2. The Royal Page Corps, (16 teachers and 24 pupils.) 3. The Royal Cadet Corps, (39 teachers and 142 pupils.) 4. The Central Agricultural School, at Schleisheim, (receipts, 6,301fl.; expenses, 16,716fl.) 5. The Farm School, at Triesdorf. 6. The three Polytechnic Schools, at Munich, Nuremberg, and Augsburg, with 33 teachers, 226 scholars. 7. The 26 Agricultural and Trade Schools, with 232 teachers and 2549 scholars.—Receipts, 152,971fl.; expenses, 149,504. 8. The Commercial School, in Nuremberg, with 392 scholars.—Receipts, 9,614fl.; expenses, 10,126fl. 9. The Central Veterinary School, in Munich, with 18 teachers, 143 pupils.—Receipts, 18,131fl.; expenses, 17,203fl. 10. The Architectural School, in Munich; 9 teachers, 143 pupils. Receipts and expenses, 2,596fl. 11. The three Schools of Midwifery, with 11 teachers and assistants, 132 scholars.—Receipts, 5,549fl.; expenses, 3,345fl. 12. The nine Deaf and Dumb Institutions, with 21 teachers and 226 pupils.—Receipts, 33,424fl.; expenses, 29,464fl. 13. Blind Institution, at Munich; 17 teachers, 66 pupils.—Receipts, 14,784fl.; expenses, 13,062fl. 14. Institution for Idiotic Children, in Munich; 3 teachers and 15 scholars.—Receipts, 5,321fl.; expenses, 4,917fl. 15. Ten Normal Schools, with 78 teachers and 518 pupils; of whom, 347 Catholic, 164 Protestant, and 7 Jewish.

Tables XXXIV–XLII. German or Common Schools.—7,113 schools; of which, 4,810 are Catholic, 2,150 Protestant, and 163 Jewish.—8,622 male teachers, 318 female teachers.—Male scholars week days, 284,788; female do., 290,426: male scholars Sundays, 178,713; female do., 192,348.—Receipts, 2,912,502fl.; expenses, 2,299,499fl.

Tables XLIII–LI. Industrial Schools, 1,550 in number; of which, 1,476 are public, 74 private; 676 independent, 874 united with other establishments; 11,033 male scholars and 58,028 female scholars, with 1,965 teachers, 1,597 of whom are female.—Receipts, 42,626fl.; expenses, 42,392fl.

Tables LII–LX. Drawing Schools, 261 in number; of which, 219 public, 42 private; 121 independent; 140 united with other institutions; 8,895 male, 1,078 female scholars; 247 male and 19 female teachers.—Receipts, 11,654fl.

Table LXI. Infant Schools.—58 private and 33 public, with 6,796 pupils; of whom, 2,740 are gratuitously received.

Tables LXII–LXX. Convent and Private Schools, 143 in number; with 872 teachers and 6,853 scholars.

FRANCE.

PROFESSIONAL EDUCATION FOR MILITARY OFFICERS.

In France there are, 1. A general staff corps; 2. Particular staff-corps. The first consists of 30 colonels, 30 lieut.-colonels, 100 majors, 300 captains, 100 lieutenants. The colonels and lieut.-colonels are employed as chiefs of the staff in the military districts, and in the divisions of the army in the field; and, as, together with the other ranks, *aides-de-camp* to the emperor, the princes, the ministers of war, and the marshals. The majors and captains are usually *aides* to general officers, who must select *aides* exclusively from the staff-corps; they belong to *corps-d'-armée* and divisions of men, whether at home or abroad, as distinguished from the particular staff-corps attached to certain stations. They are also employed on foreign embassies and diplomatic missions, and in the War Office. The lieutenants of the staff are still learners. On attaining that rank, they are attached to infantry and cavalry regiments for two years each, and then for one year, to artillery and engineers; and, it is not till after this long probation that they are promoted to captaincies, and discharge what we should call staff duties.

The particular staff-corps are three:, those belonging to military stations at home and abroad, which they command and administer; and those belonging to the artillery and to the engineers.

The existing military colleges were special; that at Saumur was devoted to cavalry; that at St. Cyr to infantry and cavalry; that at Metz to artillery and engineers, and were not, therefore, thought suitable to a service which required instruction, not in one only, but in all these branches. Hence the foundation of the Ecole d'Application d'Etat-major at Paris, by Gouvion St. Cyr.

The school at Saumur is a training-school for cavalry instructors, not for cavalry officers generally, who are at St. Cyr, with the infantry. These cavalry instructors are commissioned and non-commissioned officers, detached from their regiments for the time (two years) they spend at the school. They carry back to their regiments a uniform system of riding, and of cavalry exercises. The school at St. Cyr is not for infantry alone, but for cavalry also. The students, according to their position in the class-list of the out-going examination (*examen de sortie*), take their choice of infantry or cavalry.

The Polytechnic is one of the feeders of the staff-school. All admissions to the Polytechnic are by open competition yearly. Any young Frenchman, above 16 and under 20, in good health, may compete. For non-commissioned officers and privates, of two years' actual service, the age is extended to 25. The trial consists in written compositions, and two oral examinations. By the compositions and the first oral examination the inferior candidates are weeded out: those that remain are submitted to a second oral examination, which determines the merit of those who undergo it at any one time and place. These examinations are conducted by a Board of Examiners in Paris and the chief towns. A programme issued by the Minister of War each year indicates the subjects (all of which are equally obligatory, and failure in any one constitutes ineligibility), the times, and places of the examinations. After the examiners have finished their circuit, another Board, presided over by the Commandant of the Polytechnic. draw up, in order of merit, from the reports furnished them, a list of admissibles. The actual admission is by the Minister of War, who calculates the number of vacancies in the school as one-tenth more than the probable number of appointments to the public service from the school during the ensuing year. The annual charge for board is 1000 francs, but free exhibitions and semi-free exhibitions are given to those whose means are insufficient, and who are recommended by the municipal authorities of their locality, and by the prefect. The duration of residence is two years. There are two competitive examinations, one for the students of the first year before admission into the second year's residence, and another (*examen de sortie*) at the close of the course, before admission into the public service. The three students at the head of the list go to the staff-school: the remaining, according to their position in the class-list, make their selection among the vacancies in the artillery and engineer-school, the civil engineer service (*ponts et chaussées*), the naval arsenals, and other public offices. Those who, from being low down the list, cannot obtain places in the service of their choice, may be commissioned in the line, but not in the scientific branches of the service.

L'Ecole Speciale Militaire de St. Cyr is another feeder of the staff-school. It is designed to form completely instructed infantry and cavalry officers. As many as 600 students can be received, all by open competition only. The regulations for the examinations, admissions, residence, board, outfit, exhibitions, yearly examinations, and classification of students, are, *mutatis mutandis*, the same as those at the Polytechnic. The 25 first students at the *examen de sortie* compete for admission into the staff-school. Those who do not enter there are commissioned, at their choice, according to their place in the class-list, in the infantry or cavalry. There is a certain standard, and those who do not come up to it go into the ranks, but as non-commissioned officers, if so recommended by the commandant of the school.

We come now to L'Ecole d'Application d'Etat-major. This contains 50 students, of whom one-half go out yearly. The 25 to be annually admitted are taken, three from the Polytechnic, 22 by competition between 50 candidates, half of whom are the most distinguished students of St. Cyr, and the other half are ensigns, of one years' active service at least, not more than 25 years old, who are permitted to compete by the Minister of War. The three from the Polytechnic are placed at the head of those entering, the 22 successful candidates are classified. They all take rank and pay on admission as ensigns of the staff; and are taught for two years the whole science and art of war—strategy, tactics, manœuvres, the organization of troops and their management, in barracks, the field, or hospital; the different operations of war, offensive and defensive; its philosophy, as illustrated by eminent commanders. Eight months of the year are occupied with study within doors, three in study without, one in examinations. At the end of the course, a classified list is presented to the Minister of War, who confers the rank of lieutenant of the staff; and assigns each lieutenant to an infantry regiment, as aide-major, for two years, then to a cavalry corps for the same time, then to the artillery and engineers for another year. After all which preparation, they are eligible for the rank of captain, and enter on proper staff duties, as before described.

The French staff then is composed of officers, who are originally selected by literary competition, who, after four years of the highest theoretical teaching, tested throughout from year to year, step by step, by emulative struggles, pass five years more under practical training before they enter on their proper duties.—*Westminster Review for Jan.* 1856.

The superiority of the officers of the French staff is acknowledged by the English Reviewer, and the London Times pays the following compliment to the superior professional training of the Russian officers: —

"The scientific principles displayed in the defense of the place [Sebastopol] surpass all that ever has been done before at seiges, and totally eclipse our best engineering tactics. I hesitate not to say, and I mean it with no malice or disparagement, that, were the Russian engineer officers to see our works, they would laugh at them."

GREECE.

Statistics of Public Education in 1854.—The population of the Kingdom of Greece amounted in the year 1832 to 612,600 souls; in 1843 to 853,000, and in 1854 to 1,041,472. In 1853 there were in Athens 31,100; in Hermopolis (on the Island of Syria,) 20,000; in Patras 19,500; Argos 10,560; Sparta 6,700; Thebes 4,200, and in Corinth 3,200 inhabitants. Greece numbered in 1853, 30 Bishops and Archbishops, 5,114 Priests and Monks, 252 Lawyers, 274 Doctors, and 219,259 Farmers. There are 6,280 Storekeepers, 26,312 Sailors, 25,546 Workingmen, 11,149 Day-laborers, 4,021 Field-soldiers, and 2,418 in garrisons, 744 Marines, and 1451 Policemen. The importations amounted in 1854 to $3,738,750; $1,662,500 from France, $787,500 from Austria and Germany, $787,500 from England, $262,500 from Italy, $175,000 from Russia—while in 1852 the exportations amounted to $1,750,000, in 1853 to $1,575,000, and in 1854 to $1,195,000.

As to the condition of education in Greece, in 1854 a review has been published by the Minister of Religion and Public Education which contains some very interesting statements. There are in Greece 479 institutions of education, comprising high and elementary, public and private schools, State and parish schools from the University downward, with 688 teachers and 38,018 scholars. The State instructions cost $100,660; and the parish and private schools cost $53,588. 1853 Greece contained 483 institutions devoted to educational purposes, with 695 teachers and 46,427 scholars, and the State schools that year cost $112,693. In 1834 there were, beside the University, which contained 643 students, 7 gymnasiums with 856 scholars, 80 common schools with 4,042 scholars, one normal school with 65 scholars, 189 parochial schools for boys—supported by the State, and containing 17,128 scholars, 30 schools of the same kind for girls with 3,721 scholars; there are also 25 private schools for boys with 1,526 scholars, and 4 for girls with 300 scholars, beside the institute of Arsakis in Athens, for grown up females, which has 600 pupils; there are five female schools with 1,000 scholars.—*N. Y. Tribune.*

GREAT BRITAIN.

ASHBURTON PRIZES FOR TEACHING COMMON THINGS.

Great prominence has been recently given to instruction in common, household, and familiar things, in consequence of the establishment, by Lord Ashburton, in 1853, of "Prizes for teaching common things," to be awarded to teachers under certain conditions, as to schools and locality, which need not here be specified. The scheme embraced seven prizes—two of £8, two of £15, two of £7, and one of £10—these to be given for actual *attainment* in a knowledge of common things, and *form*, for actual success as teachers of this knowledge—to be ascertained by an open examination of one day's continuance. The objects had in view, the topics to be examined, are admirably set forth, by Lord Ashburton, in an address* to the teachers of Wilts and Hants, assembled at Winchester on the 16th of December, 1853.

"I do not require you to remit, in the slightest degree, your attention to the mechanical arts of writing and reading, and the practice of arithmetic; but I do ask you to turn your attention and the attention of your scholars to the acquirement, at the same time, of other principles of knowledge which will continue fruitful of improvement, as reading and writing are fruitful of improvement, in after life.

I ask you to show, not only by your lessons in school, but still more powerfully by your example out of school, how the garden can best be cultivated; how the dwelling may be most efficiently and economically warmed and ventilated; upon what principles food and clothing should be selected; how chronic aliments may be averted by timely attention to premonitory symptoms, and recourse to the physician. You can teach the measurement of work, the use of the lever, the pulley, and the windlass; you can, in short, expound those methods suggested by ever-advancing science, by which toil may be lightened and subsistence economized. All this is capable of being taught, and well taught.

Why is one mother of a family a better economist than another? why can one live in abundance, where another starves? Why, in similar dwellings, are the children of one parent healthy, of the other puny and ailing? Why can this laborer do with ease a task which would kill his fellow? It is not luck nor chance that decides these differences; it is the patient observation of nature, that has suggested to some gifted minds rules for their guidance which have escaped the heedlessness of others.

Why should not these rules, systematized by science, illustrated by your didactic powers—why should not they be imparted to the pupils of your schools, to enable youth to start at once with the experience of age? or if this be not in every case possible, why should not all be taught betimes to read those lessons in the book of nature from which some have derived such unquestionable advantage?

Remember that it is by the daily use of the powers of nature that man feeds and clothes and houses himself. He employs fire in a hundred ways for a hundred purposes; why should he not be taught the doctrine of heat? for some purposes he may learn to use it better; he may learn to use it for more.

Again, he passes the livelong day in the application of the mechanical powers; why should he not be instructed in their principles also? It is true that princes in this land are ignorant of them as well as peasants. In this progressive country, we neglect that knowledge in which there is progress, to devote ourselves to those branches in which we are scarcely, if at all, superior to our ancestors. In this practical country, the knowledge which gives power over nature is left to be picked up by chance on a man's way through life. In this religious country, the knowledge of God's works forms no part of the education of the people, no part even of the accomplishments of a gentleman; but this judicial blindness can not much longer exist. If we wish to hold our rank among nations, if we intend to maintain that manufacturing ascendency which is the chief source of our national strength, we must carry the study of common things not only into the schools of the poor, but into our colleges and universities.

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* The Address is contained in a pamphlet of 40 pages, (*duo*,) published by Groombridge & Sons, 5 Paternoster Row, London. 1854.

But there is still another consideration which I would fain place before you. A knowledge of the principles on which he has to act, will sweeten to the laborer and to the mechanic their daily toil. What is it that gives such a zest to our national games, as to divert men from the due prosecution of their business? There is at least as much labor in cricket and foot-ball as in ploughing or carpentering, but there comes in addition to the labor that which extracts all that it has of repulsive or irksome; there comes the pleasurable development of skill and ingenuity. Why should we not then put the laborer in the position to develop his skill and ingenuity, and thus enable him to sweeten his daily toil? At present, he drudges through his alloted task more like a machine than an intelligent being. He just does what others have done before him, he knows not why. But inform his mind, bring his head to bear as well as his hands—to the pleasurable excitement of developed ingenuity and contrivance add the still more pleasurable consciousness of exerted power—let him feel that he may, out of his own resources, master difficulties and possibly invent new processes—that man will raise his head more proudly; he will feel the self-respect of a higher occupation; he will put his heart into his work; he will do what he does better; he will earn not only more for himself, but more for his master and for his country. But this is not all: the habit of self-reliance, the sportive interest which he takes in the use of his awakened faculties will not only prosper his work in good times, but it will brace his spirits, and nerve his resolution to bear up against misfortune. When engaged in the contest of life, with the thousand material difficulties which perplex the most fortunate, which is the happier lot? Is it the lot of the man who folds his arms in the helplessness of ignorance, or of him who battles it out by the exercise of his mental faculties to the last? Whose courage is the most tried, whose nerves the most worn, who suffers the bitterest mental conflict—the soldier standing at ease under fire, or the soldier engaged in death-struggle with his enemy?

If, therefore, we wish to consult the happiness of the rising generation, let us put them in a condition to give battle to the ills which encompass them, to employ all the powers of their mind, all the resources of their imagination; so shall we substitute, in times of difficulty and distress, manly confidence and cheerful alacrity, for the sullen, spiteful moodiness of despair.

But there is another class of common things to which I have not alluded, the ignorance of which bears still more weightily on the welfare of society.

A friend of mine heard a village dame observe, a few days ago, "I should like to know why they have gone and raised the price of bread?"

Is it right, I would ask you, that the poor should be left under the impression that they owe the price of their food to the baker or the Government—the price of their labor to the free will of their employer? Are such convictions as these favorable to the maintenance of the kindly feelings essential to the happiness and peace of society? Do they not encourage the pernicious and degrading idea, too prevalent among the laboring classes, that their dependence is not upon the God who made them, and, through the blessings of God, on their own exertions, but that their dependence is upon their more favored brethren, who have acquired by their wealth the power of dealing with the poor for good or for evil, as it may flatter their benevolence or indulge their avarice?"

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"After these remarks, it is but just that I should be called upon to explain distinctly what it is that I propose that you should teach, how the topics are to be selected, how connected, in what manner brought forward. Allow me to begin by reminding you that yours is not the only education given in life. There is yet another, beginning earlier, continuing later, producing greater results; and that is the education of home. It is there that the child, by the side of parents or of its neighbor, is familiarized, partly by imitation, partly by precept, with the rudiments of its future occupation. It is there that the girl is trained to love a mother's cares and duties; it is there that the boy learns to demean himself as a member of society, as a father of a family.

Let any man pass over, in his own mind, the business of a given day, he will there see how much the larger, the more important part of that business he has learned at home. Let me give you an instance. The Chelsea school for the education of the female orphan children of soldiers was given up, because it was found that the girls there educated became an easy prey to the temptations of the world. This was not because they were less religiously, less morally brought up than other girls, but because, being withdrawn as infants from a home education, they lacked that knowledge of the world which home alone can give; because the only experience they had gained at school was how to deal with their girl companions. They had no experience to guide them when brought into contact with other companions and other trials. Such children must have been equally incapable of performing the duties of good housewives, good mothers;—in short, they had received a mere school education, which, at the best, under the most careful, the most accomplished teaching, left them ignorant of the great indispensable duties of life. And be it remembered that when, with reference to orphan children, I speak of the advantage of home, I speak of a home under, perhaps, a harsh relation, or under a stranger, more harsh, more unfeeling still. But even in that home, under that severe training, experienced from the tenderest years, nature provides compensations for the lack of a mother's care, which no school can give; for, thrown on her own resources from earliest infancy, in the midst of that world in which she is destined to live, the child grows in experience as danger springs up in her path. Her quickened perceptions, her rapidly matured character become her safeguard.

Now, with this education at home, it is not for us to compete, for it is the education of nature. It is acquired, not through the medium of words only, but through the medium of the senses also, which senses God has given us to employ for that purpose, graciously allotting, to each exertion of their powers, its appropriate pleasure to sweeten and stimulate their use. Your education, on the other hand, is an artificial education, imparted chiefly through the medium of words, appealing mostly to the reason instead of the senses, divested, I regret to say, too often through the fault of the teacher, of the pleasurable excitement which God intended to accompany the acquisition of each new idea.

Your mission is to assist and complete the home education. Your care should be so to work as to stimulate rather than impair the instinctive craving for knowledge; the vigor of the attention, the retentiveness of the memory, the practical character of the understanding. You will do this best if you take the successive facts in the child's life; facts with which he is familiar; and upon his knowledge of those facts you engraft, first, the principle or theory which explains them, and then all the kindred facts—deductions from the same principle—which may be useful in after life. For example: the child, seeing the fire kindled by its mother at the bottom of the grate, and asks why. She can not tell it why, but you can; you can do more,—you can not only explain why fire spreads upwards rather than downwards, but having done so, you light, by way of further illustration of the principle, a strip of paper; you hold it with the flame downwards, and show how instantaneously the whole is consumed. You light another and throw it on its side; it scarcely burns. You then proceed, upon these facts, witnessed and understood, to build up other kindred facts, hitherto unobserved, but good for use, and improving to the intelligence. You show how, if a girl's frock catches fire, she should at once, in obedience to this same principle, be, like the paper shred, laid flat; and then you might further show how, in conformity with a second principle, illustrated by the way in which a candle is put out by an extinguisher, the air might be excluded from the burning frock, by throwing a cloak or mat over it, and the flame extinguished. Take another case. As the flame of the candle used up the air confined under the extinguisher, and went out, for want of more, so we also, sitting in large numbers in a small room, use up rapidly the vital part of the air, and sicken for want of more, and would absolutely die, were the doors and windows altogether air-tight.

Again: water is brought in for breakfast. The child has pumped it. He has seen the pump repaired, and witnessed how his father strained to pull up the very same sucker by hand, which, with the help of the pump-handle, he has been working up and down with ease. This is one familiar fact, whereon to rest the knowledge of the lever. The use of the spade presents another, when it enables the child to tear up a block of clay from its adherence to the soil beneath, which block he would vainly attempt to lift afterwards one inch with his hands. The water is put into the kettle, of which the bottom is purposely left uncleaned, on the plea that the water will, on that account, boil the more quickly. You confirm the fact; you explain why this is the case, and you show that two principles are involved: one principle teaches, also, that paint exposed to the sun should be of a light color, in order to stand without blistering; the other principle leads to the further result, that a bright metal teapot will retain its heat longer, and therefore make better tea, than one of crockery, black and unglazed.

Again: the water boils in the kettle by the same law which diffuses the warmth of the fire in the room, and creates the draft in the chimney. By this law the cause of smoky rooms and ill-ventilated rooms may be explained, and the proper remedies suggested.

If you wish to teach geography and the use of maps, construct the first map yourself on the black board, with the assistance of the children. Place the school-house or church in the center, represent the roads leading to them, and then call on each boy to suggest some other landmark, to fill in the plan. You may take this opportunity of familiarizing your pupils with the technical terms expressive of the relative positions of roads, rivers, and other objects; *such as parallel with*, *at right angles to*. Technical terms, which are only compendious forms for the expression of familiar ideas, should be carefully taught as rapidly as the ideas themselves become known and servicable.

For the same reason, the classification of things familiar, which facilitates thought and simplifies the mode of expression, should also be communicated. Such as the classification of matter into organic and inorganic, of life into animal and vegetable, etc.

Social questions are more difficult, not because it is less easy to explain them, but because the minds of children are less interested by their discussion. The child understands when and why nuts are cheap. It would be no difficult task to extend the results of superfluity on price to the effect of over-population in the New Forest, where numbers, exceeding the demand for their labor, have been attracted by the prospect of enjoying for their pigs, and geese, and ponies unstinted rights of common. Again, the child knows by hard experience that the family must go on half rations when bread falls short on Friday night, and the shop gives no more credit. But, ask it what England must do when there is but half a crop? Ask it who will do for England what their mother did for them, when she prevented them from consuming all they had at one meal? You may perhaps lead them, step by step, to see at last that the rise of price is our only safeguard against famine; and, that this rise of price is not the work of any one man, or of any set of men, but that it originates in the expectation of those who hold corn that they will sell dearer if they sell later. You may, perhaps, succeed in showing, further, that God has not left the many to be preyed upon by the avarice of the few; that, on the contrary, he has so ordered things in this case, and, indeed, in all other cases, as to make it the interest of the few to consult the interest of the many, and to visit with actual loss those of the few who, out of ignorance, act in opposition to the interests of the many. If, for example, Farmer Styles holds back his supplies in spring, and, by refusing to sell at the price then offered, raises prices to such an extent as to prevent the spring from having its full share of the year's supply, the part of that share which has been unconsummed will be added to the share of the summer, and prices will then fall, when Farmer Styles expects to sell at an enhanced price.

You may thus go on founding the unknown upon that which is known and familiar, gratifying and exciting, but never satiating the natural appetite for knowledge, inculcating what, once heard and understood, will never be forgotten; at the same time that you cultivate those faculties which distinguish the man from the brute; and, you impart an elevation, a self-reliance to his character which will tend more than anything to raise him above sensual pleasures. By such training as this you will give him more than mere information,—you will give him habits of observing, reflecting, and acting for himself.

If I want to equip an emigrant for the backwoods, should I encumber him with ready-made articles,—with chairs, and tables, and stools? Do I not rather teach him how to make these articles for himself out of the materials beside him? You are fitting out the youth for the rude campaign of life. How shall he be equipped? Shall it be with cut and dried ideas, the fruit of the working of other men's minds, or shall he move forth, trained to gather, combine, and use ideas, the materials for which encompass him round about? You teach him to read, in order that he may, in after-life, use the thoughts of the wise among men; teach him also to read nature, which is wiser and more powerful still. Books he may or may not have in his emergencies; nature is always with him. That is not the best army which has the most baggage. What the pack of hounds, and the bands of music, and the services of plate were to our army in Affghanistan, the million facts of modern education are to the boy on his entrance in life; but, the first serious conflict, the first encounter with realities, dissolves the charm, and the hard-earned inutilities are discarded as superfluous lumber; and yet —

"The world is still deceived by ornament."

By adopting my suggestions you will not satisfy the majority of those who attend annual inspections. Their admiration is reserved for the brilliant results which are to be exhibited by drawing from the minds of children, thoughts transplanted there without roots, the produce of wiser minds. Your pupils will be of altogether a different stamp; they will know comparatively little, but the notions they have will be of home growth, of slender immediate-apparent value, proportioned as they must be to the infant minds in which they have sprung, but capable of subsequent development, to meet the emergency which may require their use.

The man of sense will distinguish at a glance their earnest, intelligent eye, their alert manner, their pertinent answers. He will give due credit to your work and to your system; but, you must resign yourselves for a time to the fate of being decried and slighted by the majority, who are too apt to value things as they are, not as they are destined to be; and, above all, to underrate the sure and slow growth which is generally the characteristic of the highest merit. Our busy, thoughtless world is too disposed to despise little gains, and yet little gains store most wealth; little moral gains, triumphs over petty temptations, make the firmest characters. So, also, little intellectual gains made hour by hour, and minute by minute, at every step in life, the result of early habit and wise education, do more to ripen the intellect and even to mature the character than any instruction that can be hammered in from without.

It is given to you, teachers of the rising generation, to bend their minds in this direction. The misery which can be remedied by the charity of rich men is purely physical, the relief can extend only to few; it neither elevates those who receive it, nor their children after them. But, the misery which the teacher can avert, by substituting self-support and self-respect for dependence and beggary, has no limits to its amount; it multiplies blessings both on the present and on succeeding generations.

The English Government cannot do better than to fill the office of "Vice President of the Committee of Council on Education," by the appointment of Lord Ashburton, and commissioning him to address such remarks to the teachers and parents of England assembled, after the fashion of our "Teachers' Institutes." If his lordship has any spare time he can extend his labors to our schools, to great advantage to our knowledge of common things.

The Prizes were awarded in 1854, and the offer of similar prizes was renewed in 1855. His example has been followed in other parts of England, as well as in Ireland, as will be seen by the following extract from *the Twenty-first Report of the Commissioners of National Education*, in 1855.

We had the satisfaction, last year, of announcing the liberal offer of Dr. Sullivan to place at our disposal the sum of £20 annually, to be awarded by us as premiums to the Teachers of National Schools in the counties of Down and Antrim, who should be found, at examinations held for the purpose, to be best acquainted with "the knowledge of common things."

Agreeably to the wish of Dr. Sullivan, we entrusted the work of conducting the first examination for these premiums to Mr. M'Creedy, one of our Head Inspectors. He, accordingly, assembled the candidates, male and female, in Belfast, early in December. They were subjected, each sex separately, to two days' examination on all the useful information contained in our Lesson Books, which contain a large amount of instruction regarding agriculture, manufactures, and commerce; the phenomena of the simpler parts of Natural Philosophy, the principles of mechanics, and the results of machinery; the laws which govern our social and economical relations; the great truths of animal and vegetable physiology; the general conditions of life in health and disease, and the relation which these bear to the observance of cleanliness, ventilation, and other sanitary provisions and regulations.

The examination was in part oral and in part written; twenty-six male and sixteen female teachers attended. We have been gratified to learn that while all acquitted themselves throughout in a highly creditable manner, the answering of the successful competitors, and of some others, was of a very superior kind, and displayed great familiarity with the subjects treated of in our books.

This experiment has been so successful, that we shall take into consideration the expediency of extending it to other parts of the country.

FEMALE ADULT EDUCATION.

The Irish Quarterly Review, for March, 1856, contains an article on Female Adult Education, in an account of a visit to the evening schools for female adults, conducted by the Sisters of Mercy, in the Callender street National school, Belfast, from which we make the following abstract:

This school was established for the purpose of extending the blessings of education to grown up females, especially to those who are employed in the mills of which there are thirty-three in operation. The Sisters of Mercy, in Belfast, opened a school in March, 1854, to which over 600 flocked for admission—twice the number that could be accommodated. The applicants were divided into two classes. The first class, of 250, were those who could read, and were anxious to learn writing and arithmetic; and in the second, of 300, were those who could not read at all. The former attended on Tuesday and Thursday, and the latter on Monday, Wednesday, and Friday. The pupils of both classes were adults, and many of them were married women. We visited it on a cold, rainy, cheerless evening, in the early part of January. We were prepared to find the school-room empty, but at 7 o'clock 205 were present. Their work in the mills had ceased at six o'clock, and in the mean time they had gone home, washed and arranged themselves, and from various and remote parts of the town made their way, in all cleanliness, to the school. The pupils pay *one pence* per week, and for this they receive instruction, books, pens, and slates, gratis. An unalterable rule is, that no one deficient in personal cleanliness, or questionable as to morals or general propriety, can be admitted. There were two school-rooms in the establishment, plainly, but adequately furnished. Maps were suspended from the walls, and conspicuously placed on the wall was the beautiful lesson published by the commissioners of national education, which inculcates christian charity and forbearance.

Christians should endeavor, as the Apostle Paul commands them, to "live peaceably with all men," (Rom. ch. xii. v. 18,) even with those of a different religious persuasion.

Our Saviour, Christ, commanded his disciples to "love one another;" he taught them to love even their enemies, to bless those that cursed them, and to pray for those who persecuted them. He himself prayed for his murderers.

Many men hold erroneous doctrines, but we ought not to hate or persecute them. We ought to seek for the truth, and to hold fast what we are convinced is the truth; but not to treat harshly those who are in error. Jesus Christ did not intend his religion to be forced on men by violent means. He would not allow his disciples to fight for him.

If any person treats us unkindly, we must not do the same to them; for Christ and his apostles have taught us not to return evil for evil. If we would obey Christ, we must do to others, not as they do to us, but as we should wish them to do to us.

Quarreling with our neighbors, and abusing them, is not the way to convince them that we are in the right, and they in the wrong. It is more likely to convince them that we have not a Christian spirit.

We ought to show ourselves followers of Christ, "who, when he was reviled, reviled not again," (1 Pet. ch. ii. v. 23,) by behaving gently and kindly to every one.

The course of education consists simply of reading, writing, and the rudiments of grammar and geography. As far as practicable, no girl is admitted who already knows how to read. It was to make the ignorant wise, and not the wise wiser, that the school was opened. It is the resolution of the Sisters of Mercy to reduce the terrible quota of ignorance, exposed by the census of 1851, viz.: of not less than 1,563,636 females, in Great Britain, who could not read or write. As soon as a pupil advances from the lowest to fourth class, which is at the end of six months' attendance, she retires and gives way to an outstanding applicant. Of the 205 females present at the time of our visit, there were thirteen as young as 12 years and eight who were 24 years—the average being 18 years; 180 worked in the mills; 117 were engaged in writing; 176, in learning arithmetical tables; 151, the easy process of mental arithmetic; 90 could read as intelligibly as the great mass of the scholars in day schools; 22 had acquired the rudiments of grammar. Order, attention, and neatness characterized the school. The religious exercises were confined to the recital of a simple and beautiful prayer, five minutes before the school dispersed. Deep, solemn, and simultaneous came their responsive tones, that God might cultivate their intellect, and prepare them the better to enjoy His wisdom and His glory. Gentleness of manners, peacefulness in their relations with their neighbors, love of order, the observance of the precepts of virtue, the avoidance of sectarian bitterness, and the upholding of the dignity and purity of their sex, are among the inestimable advantages gained from the admonitions, teachings, and example of the nuns.

NORMAL LACE SCHOOL IN DUBLIN.

The following account of an interesting experiment to introduce an entirely new branch of domestic labor into Ireland, is copied from a memorial of the Ladies' Industrial Society, to the Board of Trade for governmental aid.

This educational school emanated from a society established in the time of the famine of the year 1847, called "The Ladies' Industrial Society for Ireland;" and its object has been to introduce into this country the more elegant and difficult handicraft fabrics of *lacework* hitherto almost confined to the countries of Belgium and France, and known by the names of *Valenciennes*, *French*, and *Guipure* laces. These laces differ from all the other handicraft work bearing the name of lace hitherto produced in Ireland under the titles of *Limerick* and *Carrickmacross* lace, these latter being merely embroidery on bobbinets and muslin sewed over, so as to form a variety of patterns; while the laces, on the contrary, which are now being made in this country by means of our normal establishment, are distinguished from all *mere inventions* of lace in that they are wholly evolved (ground-work and design) by the peculiar twisting of the thread, which is wound on bobbins and placed upon a cushion for that purpose, the twisting or manipulation of the thread varying with the different species of lace to be produced. This art is extremely difficult to acquire, demanding great natural quickness and dexterity on the part of the workers; consequently this work bears a higher value than any other class of work done by hand; and though known for centuries, it is continually progressing in style and finish, and always increasing in demand.

It was in order to introduce this work that early in the year 1851 our training school was established. Since that time sixty pupils have been under instruction, twenty of whom have acquired the complete mastery of the art, and are now acting as teachers to as many local schools in the several counties of Donegal, Fermanagh, Queen's County, Louth, Longford, Limerick, Galway, Clare, Kilkenny, and Waterford.

The pupils are sent up from various parts of the country, chiefly by *ladies* desirous of establishing this manufacture amongst their poor; and these pupils are received into the school on the payment of a small sum on admission, and 2*s*. 6*d*. weekly per head.

These payments suffice to meet nearly one half of the expenses of the school; the remaining expenses have been hitherto defrayed by private contributions. The average number of resident pupils at any given time is from thirty to forty. As they complete their course of instruction they return to superintend local schools in the districts from whence they came, leaving their places in the normal school to be filled by others.

The skill displayed from the commencement by most of the pupils has been beyond what was anticipated; some of them have even reached the *highest* degree of excellence in their art, such as the pricking their own patterns, and the working from designs which latter is attainable by few even amongst the first class of lace workers abroad.

It is unnecessary to insist on the peculiar applicability to Ireland of a species of handicraft work requiring both taste and delicacy of manipulation on the part of the workers, and but little capital on the part of its promoters. The Irish poor possess a peculiar aptitude for every species of handicraft work, and most of the gentry, desirous of promoting employment amongst their poor, are yet for the most part unequal to the engaging in any undertaking involving the outlay of much capital.

The making of this lace supports a large proportion of the female pupulation both of Belgium and France, and from the experience we have had of the suitability of the work to the Irish poor, we are warranted in anticipating from it a similar result to the poor of this country.

Owing to the extreme care of the Belgians in preventing the knowledge of their art from spreading to other countries, it was many months before we could procure a lace teacher from that country; at length, through the intervention of a London lace merchant (Mr. Goblet), we obtained teachers from both Belgium and England, and the same gentleman continues to guide and assist our work, by supplying us with patterns, materials, &c., at cost prices; and it is his purpose, as well as his interest, to purchase the lace made in the several local schools according as it is produced; but in consequence of the extreme slowness of the lace work in the commencement (the Valenciennes lace especially), it has been arranged with Mr. Goblet, that for the first year the lace made by the district schools should be taken by the "Ladies' Industrial Society," who, by giving more than the wholesale price for it, prevent the workers being discouraged in their first attempts.*

The whole expenses of this our Normal School amount to 300*l*. per annum, the greater part of which is raised by private contributions; and now that its value has been so well tested, we feel that its support should no longer be allowed to rest on such uncertain grounds, but that its claims to a more permanent support should now be recognized by your Lordships.

By reference to the appropriations in aid of the Department of Science and Art, it appears that a grant of £500 was made in aid of this Model Lace School.

THE QUEEN'S INDUSTRIAL SCHOOL AT WINDSOR.

Sir James Kay Shuttleworth, on a visit to the church schools at Padiham, in order to excite the emulation of the wealthy, told an anecdote relating to the Queen:

"He was some eight or nine years ago called on by her Majesty to organize for her and Prince Albert, some schools in the royal forest of Windsor. The view the Queen took was, that a very large portion of the population resident in that district being dependent on the crown, and employed as laborers on the farms, or in the forests, or in the household duties connected with the royal farms, and so forth, she had therefore a personal responsibility in their well-being. The people were scattered over the districts between one town and another, in which there were no schools or means of education; and the children were brought up in a half-wild manner, very much in the same condition as in remote portions of the country in the south of England. Her Majesty resolved that an efficient school should be established; and it seemed desirable that the school should be typical of the act of royal munificence which was about to be accomplished, and not only worthy of the crown, but an example to the country at large. Her Majesty made no stipulation whatever as to the cost, and he drew out a scheme which involved an expenditure of £1,000 a year. It provided for the instruction of the children not merely in the ordinary secular and religious knowledge, but also supplied the best form of instruction in common things, such as in gardening, in household cooking, washing, making up clothes, &c.; in preparing dishes suitable for, and otherwise enhancing the comfort of cottagers, which latter were taught in kitchens and wash-houses prepared for the purpose. Her Majesty not only assented to this plan being carried out (and the plan had been in operation during the last nine years,) but she has promoted its success in every way; and all the linen worn by the royal children and a very great deal of that used in the royal apartments is the work of this establishment. The Queen is in the habit of inspecting the place in person, and takes a deep interest in its operations. The boys have a garden of several acres, in which they cultivate all that is necessary for cottage use; they have a plot which they jointly cultivate; and in addition they have small separate plots, which they cultivate upon the plan of the common cottage gardener. They are employed also in workshops, but chiefly in gardening. This establishment does not simply exist as a sort of outside show, but is a subject of personal interest to Her Majesty; is regularly inspected by her, and often by the different visitors at the court; and the Prince of Wales is in the habit of examining the scholars in certain branches of their studies."

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* Six of these district schools are now producing good and saleable lace.

INFLUENCE OF THE RECENT COMPETITIVE EXAMINATION ON THE EDUCATIONAL SYSTEMS OF SCOTLAND.

Appointments to the civil services of the East India Company are now given on the basis of a competitive examination, open to all candidates from any section of the British Empire, and from any educational institution. The North British Review, for February, 1856, uses the following language in reference to the influence of these examinations on the old educational systems, especially those of Scotland.

" Here were great prizes to gain, instead of doubtful *plucks* to avoid; rank, an early settlement, and wealth; a valuable certainty for the present, and untold possibilities for the future, amidst those dusky millions of the East, whose rule had till now been guarded by a jealous monopoly of patronage. It was now time for all colleges and schools to bestir themselves. And the effect has been, to transfer at one blow the main strength of examinatorial influence to a central board, or it may prove to be an aggregate of such boards, existing entirely outside of all our seats of learning, and entirely exempt from their control. The wand of mere college examiners is broken. Their approval is no longer looked up to by the student as his highest educational reward. Their judgment may be reversed on appeal to a tribunal, which can recompense its favorites by richer prizes. Every one, therefore, is naturally looking to see how the old institutions will bear the strain of this new trial; how they will comport themselves under this unexpected change. Now, men are saying, we shall all know how far old boastings will be justified, and whether venerable claims will be confirmed. Now we can examine examiners. Now we can turn the tables on the dignified authorities of college rule. We have at last obtained a central appeal to balance their pretensions; a court of supervision, which may correct some arrogance, dispel some foolish vaporing, and secure its true place for modest and hitherto neglected merit.

Their first impulse, therefore, hurried men to a speedy counting up of marks, and a comparison of relative success. England boasted of her triumph with one in every four of her numerous candidates. Ireland, though the Dublin men had a grievous disapointment, was yet not quite inconsolable with her one in each eleven. Scotland bewailed the solitary promise of the one who succeeded, from her whole array of fifteen aspirants. So again, Oxford pointed proudly to her eight winners out of nineteen candidates, as an answer in full to the ignorance and misconception, which had dreamed that nothing useful or practical could spring from her secluded halls. Cambridge was a little doubtful whether all was fair, when she found that her thirty-two candidates only produced six winners; but she drew some comfort from the fact, that they stood rather higher than the sons of her sister on the roll. The London University College claimed the first man on the whole list, and was otherwise content to gain two places with six candidates. King's College, London, and Queen's College, Galway, held their heads higher at securing one place each with only two candidates. Queen's College, Cork, could not complain, because she too had only one place with five candidates, when she saw that her unfortunate elder sister, of Dublin, did not gain a single place with fourteen. To console the wounded pride of Dublin, a fellow of Trinity College immediately published an abstruse calculation, to prove that her students had "fought in the shade." But alas for Scotland! she had little ground for either immediate boast or after-thought solace. There was dismay throughout the land when it was heard, that the country had been beaten hollow on its favorite ground: that while the Scotch universities and schools had shown their good-will by sending fifteen candidates, they had sadly exposed their weakness when only one of the fifteen succeeded. We have no wish to reopen unnecessarily the controversy which this provoking result occasioned; but some points in it seem to demand a closer handling. It must be admitted that Scotland has been, in many respects, unfairly treated in the recent changes. This has been clearly shown by other writers. But when we look at the great breadth of the examination, and the large amount of attainable marks, (6875,) as contrasted with the smallness of the numbers which actually commanded success, (the highest being 2254, and the lowest 1120,) we do not think that there are many Scotchmen who are not concious of a painful misgiving, that their countrymen had not been properly equipped for the contest.

On this, as on all other subjects, the plain truth is also the most wholesome. Do not let us try to hide it by phrases. Do not let us go off the scent by carping at the examiners, finding fault with their questions, suggesting doubts about their rules, or complaining of the unfair exclusion of Scottish professors from their list. There may be something in all this, and it will be well to get it amended if we can. But it is our still earlier duty to look to our own faults, and to see that they are amended. If Scotchmen were beaten, there are several respects in which Scotland was herself to blame.

They were beaten, then, because the raw and medley classes of Scottish universities can not follow up the splendid drill of Scottish schools. They were beaten, because Scottish parents have been penny-wise and pound-foolish; because they have forgotten the means while they were grasping at the end; because they have sent forth their sons to the battle of life, after grudging them the training which they needed for the war; because they have impoverished their schools by draining them of their older pupils, and drowned their universities, by flooding their halls with boyish students; because they have so shamefully underpaid the learned, that they have almost starved learning itself out of the land; because they have thus spoilt the fair stream of Scottish education, which flows near its source with a firm and steady current, by letting it flush forth too soon into the diffusive, the shallow, and the worthless, instead of damming it up so as to make it strong, clear, powerful, and profound.

LORD JOHN RUSSELL'S SCHEME OF NATIONAL EDUCATION.

Lord J. Russell, on the 6th of March, 1856, in the House of Commons, moved the following resolutions:—

1. That, in the opinion of this House, it is expedient to extend, revise and consolidate the minutes of the Committee of Privy Council on Education.

2. That it is expedient to add to the present inspectors of church schools, 80 sub-inspectors, and to divide England and Wales into 80 divisions for the purposes of education.

3. That it is expedient to appoint sub-inspectors of British, Wesleyan, and other Protestant schools not connected with the church, and also of Roman Cath-

olic schools, according to the present proportions of inspectors of such schools, to the inspectors of such schools.

4. That on the report of the inspectors and sub-inspectors, the Committee of Privy Council should have power to form, in each division, school districts, consisting of single or united parishes, or parts of parishes.

5. That the sub-inspectors of schools of each division should be instructed to report on the available means for the education of the poor in each school district.

6. That for the purpose of extending such means, it is expedient that the powers at present possessed by the Commissioners of Charitable Trust be enlarged, and that the funds, now useless or injurious to the public, be applied to the education of the middle and poorer classes of the community.

7. That it is expedient that in any school district where the means of education arising from any endowment, subscription, grants, and schoolpence shall be found deficient, and shall be declared to be so by the Committee of Privy Council for Education, the ratepayers should have the power of taxing themselves for the erection and maintenance of a school or schools.

8. That after the 1st of January, 1858, when any school district shall have been declared to be deficient in adequate means for the education of the poor, the quarter sessions of the peace for the county, city, or borough, should have power to impose a school rate.

9. That where a school rate is imposed, a school committee elected by the ratepayers should appoint the schoolmasters and mistresses, and make regulations for the management of the schools.

10. That in every school supported, in whole or in part, by rates, a portion of the Holy Scriptures should be read daily in the school, and such other provision should be made for religious instruction as the school committee may think fit, but that no child should be compelled to receive any religious instruction or attend any religious worship to which his or her parents or guardians shall, on conscientious grounds, object.

11. That employers of children and young persons between 9 and 15 years of age, should be required to furnish certificates, half-yearly, of the attendance of such children and young persons at school, and to pay for such instruction.

12. That it is expedient that every encouragement should be given by prizes, by diminution of school fees, by libraries, by evening schools, and other methods, to the instruction of young persons between 12 and 15 years of age.

These resolutions were sustained by the noble mover, in a speech of three hours, and of marked ability, and which apparently commanded the assent of the house. But on the 10th of April the discussion was continued, and on the opposition of several leading members, the scheme was withdrawn.

A bill has passed the House of Lords, authorizing the appointment of a Vice President of the Committee of Council on Education, with a seat in the House of Commons. This officer will be, virtually, Minister of Public Instruction.

NEW SOUTH WALES.

The number of schools of all kinds in New South Wales, at the close of the year 1853, was 420, with a total of 25,660 scholars; of whom 13,575 were males, and 12,085 females. The schools are divisible under the following heads:—Orphan, 2, (one Protestant and one Catholic,) with 337 scholars; Denominational, 174, with 14,879 scholars; these schools are thus sub-divided:—Church of England, 91, with 6,887 scholars; Presbyterian, 16, with 1,443 scholars; Wesleyan, 8, with 935 scholars; Roman Catholic, 59, with 5,614 scholars. National schools, 46, with 3,651 scholars. The whole of the foregoing schools receive support from government. To the list of educational establishments receiving government aid, must also be added the University of Sydney. Of private schools there were 197, with 6,738 scholars. The total amount of government aid received for educational purposes in 1853 was £25,450,17s. 7d.; the amount of voluntary subscriptions, £10,492,8s, 2d. The two orphan schools are entirely supported by government aid, the Protestant receiving in 1853, £2,411, 11s. 1d.; the Roman Catholic, £2,760, 0s. 7d.

TABLE.—EDUCATIONAL STATISTICS OF GREAT BRITAIN IN 1851.

[*From Burritt's Year Book of the Nations.*]

Description and Number of Public and Private Schools, and Number of Scholars, in England and Wales in 1851.

Description of Schools.	No. of Schls.	No. of Scholars.
Class 1.		
Military Schools	35	3,348
Naval Schools	14	2,348
Woods and Forests Schools	1	259
Corporation Schools	3	2,394
Workhouse Schools	523	38,067
Prison Schools	34	2,410
TOTAL..	610	48,826
Class 2.		
Collegiate & Grammar Sch.	566	35,612
Other Endowed Schools ..	2,599	170,667
TOTAL..	3,125	206,279
Class 3.		
Denominational, supported by		
Church of England—		
,, National ..	3,720	464,975
,, British....	12	1,043
,, Others....	4,839	335,489
Church of Scotland—British	1	130
,, Others	4	816
United Presbyterians	3	217
Presbyterian Church in England—British......	2	86
,, Others......	23	2,361
Scottish Presbyterians....	1	345
Presbyterians (not otherwise defined)—British	1	263
,, Others	6	1,058
Independents—British....	183	22,598
,, Others....	248	24,808
Baptists—British	51	4,946
,, Others........	64	3,719
Society of Friends—British	5	577
,, Others	18	1,670
Unitarians—British......	4	882
,, Others......	26	2,854
Moravians	7	366
Wesleyan Methodists—Brit.	20	3,082
,, Others......	343	36,682
Methodist New Connexion,		
,, British..	3	667
,, Others..	10	1,148
Primitive Methodist—Brit.	2	206
,, Others..	23	1,091
Class 3 (continued).		
Denominational (continued).		
Bible Christians—British..	1	64
,, Others..	7	303
Wesleyan Meth. Association	10	1,112
Calvinistic Meth.—British	22	1,759
,, Others..	19	1,055
Lady Huntingdon's Connexion—British..	1	80
,, Others..	8	564
New Church............	9	1,551
Dissenters (not defined) Br.	28	3,851
,, Others..	15	1,541
Lutherans..............	1	157
French Protestants	1	15
German Missionary Society	1	100
Isolated Congregatns.—Br.	2	184
Others..	12	960
Roman Catholics	311	38,583
Jews	10	1,234
Undenominational—British	514	82,597
,, Others..	4	1,062
TOTAL..	10,595	1,048,851
Class 4.		
Ragged Schools (exclusive of those supported by religious bodies)	123	22,337
Orphan Schools..........	39	3,764
Blind Schools	11	609
Deaf and Dumb Schools ..	9	392
School for Idiots	1	18
Factory Schools	115	17,834
Colliery Schools	41	3,511
Chemical Works Schools ..	4	832
Foundry School	1	103
Mechanics' Institution Sch.	5	1,564
Industrial Schools	6	607
Agricultural Schools......	3	264
Railway Schools	5	842
Philanthrop. Soc. Farm Sc.	1	96
Other Subscription Schools of no specific character..	717	56,441
TOTAL..	1,081	109,214

SUMMARY OF ENGLAND AND WALES.

Public Day Schools, 15,411	Scholars, 1,413,170	Males, 795,632	Females, 617,538
Private do. Schools, 29,425	,, 695,422	,, 343,692	,, 351,730
Sunday Schools.... 23,137	,, 2,369,039	,, 1,174,647	,, 1,194,392
Eve. Sch. for Adults, 1,545	,, 39,783	,, 27,829	,, 11,954

AMERICAN STATES.

PROF. DANA'S INAUGURAL DISCOURSE AS SILLIMAN PROFESSOR OF GEOLOGY IN YALE COLLEGE.

Prof. James D. Dana, LL. D., entered upon his duties as Professor of Geology and Natural History in Yale College, on the 18th of February, 1856. In the exordium to his Introductory Lecture, he held the following language respecting his distinguished predecessor, Professor Benjamin Silliman, Senior, in the Chair of Geology, whose connection with the Professorship embraces the history of that Science in this country.

"In entering upon the duties of this place, my thoughts turn rather to the past, than to the subject of the present hour. I feel that it is an honored place, honored by the labors of one who has been the guardian of American Science from its childhood; who here first opened to the country the wonderful records of Geology; whose words of eloquence and earnest truth, were but the overflow of a soul full of noble sentiments and warm sympathies, the whole throwing a peculiar charm over his learning, and rendering his name beloved as well as illustrious. Just fifty years since Professor Silliman took his station at the head of chemical and geological science in this college. Geology was then hardly known by name in the land out of these walls. Two years before, previous to his tour in Europe, the whole Cabinet of Yale was a half bushel of unlabeled stones. On visiting England, he found even in London no school, public or private, for geological instruction, and the science was not named in the English Universities. To the mines, quarries and cliffs of England, the crags of Scotland, and the meadows of Holland, he looked for knowledge, and from these and the teachings of Murray, Jameson, Hall, Hope, and Playfair, at Edinburgh, Professor Silliman returned, equipped for duty,—albeit a great duty,—that of laying the foundation, and creating almost out of nothing, a department not before recognized in any institution in America.

He began his work in 1806. The Science was without books—and too without system, except such as its few cultivators had each for himself in his conceptions. It was the age of the first beginnings of Geology, when Wernerians and Huttonians were arrayed in a contest. The disciples of Werner believed that all rocks had been deposited from aqueous solutions,—from a foul chaotic ocean that fermented and settled, and so produced the succession of strata. The disciples of Hutton had no faith in water, and would not take it even half and half with their more potent agency, but were for fire, and fire alone. Thus, as when the earth itself was evolved from chaos, fire and water were in violent conflict: and out of the conflict emerged the noble science.

Professor Silliman when at Edinburgh witnessed the strife, and while, as he says, his earliest predilections were for the more peaceful mode of rock making, these soon yielded to the accumulating evidence, and both views became combined in his mind in one harmonious whole. The science, thus evolved, grew with him and by him; for his own labors contributed to its extension. Every year was a year of expansion and onward development, and the grandeur of the opening views found in him a ready and appreciative response. Like nature herself, ever fresh and vigorous in the display of truth, bearing flowers as well as facts, full and glowing in his illustrations, and clear in his views and reasonings, he became a centre of illumination for the Continent. The attraction of that light led his successor out of Oneida County, New York, to Yale; and I doubt not, if all should now speak that have been guided hither by the same influence, we should have a vast chorus of voices.

Geology from the first encountered opposition. Its very essence, indeed the very existence of the Science, involved the idea of Secondary causes in the progress of the creation of the world—whilst Moses had seemingly reduced each step of progress to a *fiat*, a word of command. The champions of the Bible seemed called upon, therefore, to defend it against scientific innovations: and they labored zealously and honestly, not knowing that Science may also be of God. Professor Silliman being an example of Christian character beyond reproach, personal attacks were not often made. But thousands of regrets that his influence was given over to the dissemination of error were privately, and sometimes publicly expressed. An equal interest was exhibited by the lecturer in the welfare of his opponents, and the progress of what he believed to be the truth; and with boldness and power he stood by both the Bible and the Science, until now there are few to question his faith.

And while the Science and truth have thus made progress here, through these labors of fifty years, the means of study in the Institution have no less increased. Instead of that half bushel of stones, which once went to Philadelphia for names, in a candle box, you see above the largest Mineral Cabinet in the country, which but for Professor Silliman, his attractions and his personal exertions together,—would never have been one of the glories of Old Yale. And there are also in the same Hall, large collections of Fossils of the Chalk, Wealden and Tertiary of England, which following the course of affection and admiration, came from Doctor Mantell to Professor Silliman, and now have their place with the other "Medals of Creation," there treasured along with similar collections from M. Alexander Brongniart of Paris. Thus the stream has been ever flowing, and this Institution has had the benefit,—a stream not solely of minerals and fossils, but also of pupils and friends.

Moreover, the American Journal of Science—now in its thirty-seventh year and seventieth volume—projected and long sustained solely by Professor Silliman, while ever distributing truth, has also been ever gathering honors, and is one of the laurels of Yale.

We rejoice that in laying aside his studies, after so many years of labor, there is still no abated vigor. Youth with him has been perpetual. Years *will* make some encroachments as they pass: yet Time, with some, seems to stand aloof when the inner Temple is guarded by a soul of genial sympathies and cheerful goodness. He retires as one whose right it is to throw the burden on others. Long may he be with us, to enjoy the good he has done, and cheer us by his noble and benign presence."

EDWARD EVERETT AMONG THE SCHOOL CHILDREN OF BOSTON.

At the School Festival held in Faneuil Hall, at the close of the Annual Examination of the Grammar Schools of Boston, in 1855, Hon. Edward Everett made the following beautiful address:—

"It was, Mr. Mayor, fifty-two years last April, since I began, at the age of nine years, to attend the reading and writing schools in North Bennet street. The reading school was under Master Little, (for "Young America" had not yet repudiated that title,) and the writing school was kept by Master Tilestone. Master Little, in spite of his name, was a giant in stature—six feet four, at least

—and somewhat wedded to the past. He struggled earnestly against the change then taking place in the pronunciation of *u*, and insisted on our saying *monooment* and *natur*. But I acquired, under his tuition, what was thought, in those days, a very tolerable knowledge of Lindley Murray's abridgement of English grammar, and at the end of the year could parse almost any sentence in the American Preceptor. Master Tilestone was a writing master of the old school. He set the copies himself, and taught that beautiful old Boston handwriting, which, if I do not mistake, has, in the march of innovation, (which is not always the same thing as improvement,) been changed very little for the better. Master Tilestone was advanced in years, and had found a qualification for his calling as a writing master, in what might have seemed, at first, to threaten to be an obstruction. The fingers of his right hand had been contracted and stiffened in early life, by a burn, but were fixed in just the position to hold a pen and a penknife, and nothing else. As they were also considerably indurated, they served as a convenient instrument of discipline. A copy badly written, or a blotted page, was sometimes visited with an infliction which would have done no discredit to the beak of a bald eagle. His long, deep desk was a perfect curiosity shop of confiscated balls, tops, penknives, marbles, and jewsharps; the accumulation of forty years. I desire, however, to speak of him with gratitude, for he put me on the track of an acquisition which has been extremely useful to me in after life—that of a plain legible hand. I remained at these schools about sixteen months, and had the good fortune, in 1804, to receive the Franklin medal in the English department.

After an interval of about a year, during which I attended a private school kept by Mr. Ezekiel Webster, of New Hampshire, and on occasion of his absence, by his ever memorable brother, Daniel Webster, at that time a student of law in Boston, I went to the Latin school, then slowly emerging from a state of extreme depression. It was kept in School street, where the Horticultural Hall now stands. Those who judge of what the Boston Latin School ought to be, from the spacious and commodious building in Bedford street, can form but little idea of the old school house. It contained but one room, heated in the winter by an iron stove, which sent up a funnel into a curious brick chimney, built down from the roof, in the middle of the room, to within seven or eight feet from the floor, being like Mahomet's coffin, held in the air to the roof by bars of iron. The boys had to take their turns, in winter, in coming early to the school-house, to open it, to make a fire, sometimes of wet logs and a very inadequate supply of other combustibles, to sweep out the room, and, if need be, to shovel a path through the snow to the street. These were not very fascinating duties for an urchin of ten or eleven; but we lived through it, and were perhaps not the worse for having to turn our hands to these little offices.

The standard of scholastic attainment was certainly not higher than that of material comfort in those days. We read pretty much the same books—or of the same class—in Latin and Greek, as are read now; but in a very cursory and superficial manner. There was no attention paid to the philosophy of the languages, to the deduction of words from their radical elements, to the niceties of construction, still less to prosody. I never made an hexameter or pentameter verse, till years afterwards I had a son at school in London, who occasionally required a little aid in that way. The subsidiary and illustrative branches were wholly unknown in the Latin School in 1805. Such a thing as a school library, a book of reference, a critical edition of a classic, a map, a blackboard, an engraving of an ancient building, or a copy of a work of ancient art, such as now adorn the walls of our schools, was as little known as the electric telegraph. If our children, who possess all these appliances and aids to learning, do not greatly excel their parents, they will be much to blame.

At this school in 1806, I had the satisfaction to receive the Franklin medal, which, however, as well as that received at the English school in 1804, during my absence from the country in early life, I was so unfortunate as to lose. I begged my friend, Dr. Shurtleff, a year or more ago, to replace them—these precious trophies of my school-boy days—at my expense, which he has promised to do. He has not yet had time to keep his word; but as, in addition to his other numerous professional and official occupations, he is engaged in editing the records of the Massachusetts and Plymouth Colony, in about twenty-five volumes folio, and is bringing out the work at the rate of five or six volumes a year, I suppose I must excuse him for not attending to my medals, although, like Julius Cæsar, the doctor possesses the faculty of doing three or four things at the same time, and all with great precision and thoroughness.

Mr. Mayor, the schools of Boston have improved within fifty years, beyond what any one will readily conceive, who has not, in his own person, made the examination. I have made it myself only with reference to the Latin School, but I have no reason to doubt that it is the same with all the others. The support of the schools is justly regarded as the first care of the city government; and the public expenditure upon them is greater in proportion to the population than in any city in the world. I had occasion, last week, to make a statement on this subject, to a gentleman from a distant State, and when I informed him that the richest individual in Boston could not, with all his money, buy better schooling for his son, than the public schools furnish to the child of the poorest citizen, he was lost in admiration. I do not think the people of Boston themselves realize, as they ought, what a privilege they possess in having that education brought to their doors, for which parents in some other parts of the country are obliged to send their children a hundred or a thousand miles from home; for we may well repeat the inquiry of Cicero, "Ubi enim aut jucundius morarentur quam in patria, aut pudicitius continerentur quam sub oculis parentum, aut minore sumptu quam domi?"

In a word, sir, when the Public Library shall be completed, (and thanks to the liberality of the city government it is making the most satisfactory progress,) which I have always regarded as the necessary supplement to our schools, I do really think that Boston will possess an educational system superior to any other in the world.

Let me, sir, before I sit down, congratulate the boys and girls in their success, who, as medal scholars are privileged to be here. The reward they have now received for their early efforts is designed as an incentive to future exertion; without which the Franklin medal will be rather a disgrace than a credit to them. But let them also bear their honors with meekness. Of their schoolmates of both sexes who have failed to obtain these coveted distinctions, some, less endowed with natural talent, have probably made exertions equally if not more meritorious; some have failed through ill health Some, whom you now leave a good way behind, will come straining after you and perhaps surpass you in the great race of life. Let your present superior good fortune, my young friends, have no other effect than to inspire you with considerateness and kind feeling toward your schoolmates. Let not the dark passions, and base, selfish, and party feelings which lead grown men to hate and vilify, and seek to injure each other, find entrance into your young and innocent bosoms. Let these early honors lead you to a more strict observance of the eleventh commandment, toward those whom you have distanced in these school day rivalries, or who, from any cause, have been prevented from sharing with you the enjoyments of this day; and as you may not all know exactly what the eleventh commandment is, I will end a poor speech by telling you a good story:

The celebrated Archbishop Usher was, in his younger days, wrecked on the coast of Ireland, at a place where his person and character were alike unknown. Stripped of everything, he wandered to the house of a dignitary of the church, in search of shelter and relief, craving assistance as a brother clergyman. The dignitary, struck with his squalid appearance after the wreck, distrusted his tale, and doubted his character; and said that, so far from being a clergyman, he did not believe he could even tell how many commandments there were. "I can at once satisfy you," said the Archbishop, "that I am not the ignorant imposter you take me for. There are eleven commandments." This answer confirmed the dignitary in his suspicions, and he replied with a sneer, "Indeed, there are but ten commandments in my bible; tell me the eleventh and I will believe you." "Here it is," said the Archbishop, "A new commandment give I unto you, that ye love one another."

He prayeth best, who loveth best
All things both great and small;
For the dear God who loveth us,
He made and loveth all.

S. T. Coleridge.

SCHOOL-HOUSES CONVERTED INTO MONUMENTS OF PUBLIC SERVICE.

The practice begins to prevail of distinguishing the public schools of different localities of the same city by naming them after individuals who may happen to hold office at the time of instituting the school, or erecting the building, or, which we deem far better, after some of those noble men who, in the infancy of the state, laid the foundations of its prosperity by providing for the education of the whole people. In no way can their names pass so universally into the household words of a community. We select two beautiful instances of well-deserved commemoration of this kind.

WINTHROP SCHOOL-HOUSE, BOSTON.

The spacious, commodious, and elegant school-house recently erected in Boston, at an expense, including the site, of $90,000, was dedicated with appropriate exercises, and called after the name of the first Governor of Massachusetts,—the Winthrop School-house. Hon. Robert C. Winthrop, a lineal and worthy descendant of John Winthrop, made an address on the occasion, substantially as follows:—

I need not say that I have felt something more than a common interest in this scene. As a mere citizen of Boston, born upon her soil, educated in her public schools, and bound to her by a thousand ties of affection and gratitude, which no time can sever, I should, indeed, have found abundant reason for gratification and for pride in seeing her engaged, in the person of her chief magistrate, in dedicating so spacious and noble an edifice to the cause of popular education. As a humble but sincere friend to free government and republican liberty, too, I could not have failed to rejoice at beholding another buttress added to the bulwarks which are to save them from overthrow and downfall. For, my friends, it cannot be too often repeated, trite and common-place as it may sound, that these free institutions of ours can rest securely on no other basis than that of intelligence and virtue; and that intelligence and virtue can be disseminated and inculcated by no other agencies than the school and the church. Our school-houses and churches—these are the true towers and bulwarks of a republic, and the only standing army of freedom is that innumerable host of children who are in process of being trained up, in our sabbath schools and our week-day schools, in the fear of God, in the love of their neighbor, and in the elements of all useful knowledge and all sound learning.* It may well be a subject for joy, then, to every patriotic heart,—and I hope mine is one,—to see our cities and towns vying with each other, not like those of the old world, in the sumptuousness of their private mansions, or the magnificence of their government halls, but in the elegance and spaciousness and completeness of their common school-houses.

But, my friends, it would be affectation in me to conceal that I have another and peculiar interest in this occasion. I am sure that I need feel no delicacy in speaking of the distinguished person in whose honor this school has been primarily named. Five entire generations have now intervened between him and myself. More than two hundred years,—a long time in your little calendar, my young friends,—have passed away since he was laid beneath the sod in what is now King's Chapel Burying Ground, within a few feet of the City Hall, where a humble tomb-stone may be seen, bearing the inscription "John Winthrop, 1649." my relation to him, though direct, is thus almost too remote to subject anything I may say of him to the imputation of being dictated by any mere partiality or family pride. His name, too, is an historical name, upon which the judgment of the world has long ago been irrevocably pronounced.

Coming over here in 1630, as the leader and Governor of the Massachusetts

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*On another occasion Mr. Winthrop characterized our public schools thus: "Other nations may boast of their magnificent gems and monster diamonds. Our Kohinoor is our Common School System. This is our "mountain of light,"—not snatched, indeed, as a prize from a barbarous foe, nor destined to deck a royal brow, or to irradiate a Crystal Palace, but whose pure and penetrating ray illumines every brow, and enlightens every mind, and cheers every heart and every hearthstone in the land, and which supplies, from its exhaustless mines, a ornaments of grace unto the head, and chains upon the neck "of every son and daughter of Massachusetts."

Company, with their Charter in his hand, he was identified, perhaps beyond all other men, at once with the foundation of our Commonwealth and of our city. And there is not a page of our Colonial Records, or of our Town Records, during the nineteen years of his living here, which does not bear testimony to his labors and his zeal for the public service. The very first entry in the records of Boston, if I mistake not, was in the handwriting, still extant, of John Winthrop. The first voluntary subscription for the support of Free Schools, in 1636, bore his name, as one of the three equal and largest contributors. The first statute for the establishment of a system of Education in New England, was passed under his auspices as Governor of the Commonwealth. The neighboring Common, the pride of our city, the play-place of our children, the source of so much health and happiness to us all, was originally laid out while he was at the head of the old Town Government, and by a Committee of which he was Chairman. The evidences of his services and of his sacrifices might be multiplied on every side. He spent his whole strength and his whole substance in the service of the infant Colony, and died, at last, a poor man; poor in everything but that good name which is above all price.

But, it is not so much what he did as what he was, that entitles him to the grateful remembrance of the sons and daughters of Boston, and of Massachusetts. He was a man of the purest life, of the sternest integrity, of the loftiest moral and religious principle; and, he has left an example of moderation and magnanimity, of virtue and piety, second to none which can be found in the annals of our country. His residence was near the site of the old South Church,—his garden, I believe, including the land upon which that venerated edifice now stands,—and it would scarcely be too much to say, that the atmosphere within those hallowed walls, purified as it is by the weekly prayers and praises of a thousand worshippers, is hardly more pure than when it was the atmosphere of John Winthrop's mansion.

I know not how, Mr. Mayor, I can do anything more appropriate to this occasion, or furnish any more striking illustration of the principles of him whose name has been inscribed upon these walls, than to read you a few brief sentences from one of his own letters. The letter is dated on the 16th of October, 1622, and was addressed to his eldest son, then a lad of 16 years old, who was pursuing his studies at Trinity College, Dublin. It furnishes ample proof that the writer was not a man to be satisfied with any mere intellectual education; but, that his first care was for the moral and religious instruction of the young.

"*My dearly beloved Son:*—I do usually begin and end my letters with that which I would have the *alpha* and *omega* of all thy thoughts and endeavors, viz.: the blessing of the Almighty to be upon thee,—not after the common valuation of God's blessings, like the warming of the Sun to a hale, stirring body,—but that blessing which faith finds in the sweet promises of God and his free favor, whereby the soul hath a place of joy and refuge in all storms of adversity. I beseech the Lord to open thine eyes, that thou mayest see the riches of His grace, which will abate the account of all earthly vanities; and, if it please Him to give thee once a taste of the sweetness of the true wisdom, which is from above, it will season thy studies, and give a new temper to thy soul. Remember, therefore, what the wisest saith, The fear of the Lord is the beginning of wisdom. Lay this foundation, and thou shalt be wise indeed."

Such was the career, and such the character of Governor Winthrop, and I need add nothing more, I am persuaded, to show that his name is worthy of being given to your school. And now, my young friends, it is for you, in your turn, to decide whether the school shall be worthy of the name. No names, however distinguished; no buildings, however convenient or costly; no committees, however enlightened and vigilant; no instructors, however accomplished and devoted, can make a good school, without the hearty coöperation, and willing compliance, and faithful study of the scholars. Let me conclude, then, by expressing the hope that you will not be unmindful of your opportunities, that you will not be unmindful of the example of him by whose name you are to be designated; and that, by your diligence, your good conduct, your fidelity to your duties, your reverence for the laws of God and of man, and your observance of the lessons of your instructors, you may strive to render the Winthrop School as much a model school in its internal condition and discipline, as it certainly seems to be in its external structure and arrangement. And, may the blessing of Heaven be upon your efforts!

EATON SCHOOL-HOUSE, NEW HAVEN.

The new Public School, established in New Haven, as well as the building recently erected for its accommodation, and which in location, spaciousness and furniture, is not surpassed by any similar structure in the whole country—bears the name of one honored in the annals of New England, as well as in the colony of New Haven. The School Committee in their annual report for 1855 remark:—

The name was given to this school to commemorate the character and public services of Theophilus Eaton, the first Governor of the Colony of New Haven, especially those services which were devoted to the advancement of popular education in the town and colony of New Haven. It is, doubtless, proper to add in this place a few other facts in the history of this good man, whose name deserves to be held in grateful remembrance by every citizen of New Haven. Mather, in his Magnalia, states that he was born at Stony-Stratford, in Oxfordshire, England, about 1592, and was the eldest son of the minister at that place. At school, in Coventry, to which place his father removed, he became intimate with John Davenport, and the two in after years (says the Hon. Henry Barnard) "established in New Haven, before it ceased to be an independent colony, a system of public education, at that time without a parallel in any part of the world, and not surpassed in its universal application to all classes, rich and poor, at any period in the subsequent history of the State." The second wife of Governor Eaton was the widow of David Yale, and after his death she returned to England, with her little grandson, Elihu Yale, whose benefactions, in later life, to the College in his native town, have rendered his name immortal. Hubbard, in his History of New England, says of Governor Eaton, "He had in him great gifts, and as many excellencies as are usually found in any one man. He had an excellent princely face and port, commanding respect from all others; he was a good scholar, a traveler, a great reader, of an exceeding steady and even spirit, not easily moved to passion, and standing unshaken in his principles when once fixed upon, of a profound judgment, full of majesty and authority in his judicatures, so that it was a vain thing to offer to brave him out, and yet in his ordinary conversation, and among friends, of such pleasantness of behavior, and such facility and fecundity of harmless wit as hardly can be paralleled; but above all, he was seasoned with religion, close in closet duties, solemn and substantial in family worship, a diligent and constant attendant upon all public ordinances, taking notes of the sermons he heard, exactly, and improving them accordingly; in short, approving himself in the whole course of his life, in faithfulness, and wisdom, and inoffensive before God and man."

Gov. Winthrop in his Journal says, "no character in the annals of New England is of purer fame than that of Theophilus Eaton, Governor of the Colony of New Haven from its settlement to his death, by twenty annual elections—the only instance of such an honor ever conferred. That his talents were adequate to the station might be confidently concluded from the fact of his prior service, several years, as representative of Charles I, at the court of Denmark; and the long administration of an infant State without a rival, is irrefragable proof of his prudence and virtue." All the original writers of our history are abundant in his praise, and the later and more judicious inquirers are satisfied with the evidence.

The building was dedicated with appropriate services of prayer and praise, in the presence of a crowded auditory, on the 29th of August, 1855. Addresses were made by James F. Babcock, Esq., Prof. Hooker, Rev. W. T. Eustis, Capt. Foote, of the United States Navy, Prof. Silliman and President Woolsey, of Yale College. President Woolsey, among other remarks, said:

"It is sometimes charged upon College men that they take no interest in common school education. This is hardly true. The most that can be said of us is that we have no time to engage in care for its development, and must leave it to be provided for by our fellow citizens. Certainly that college man would be very silly who felt no sympathy, and recognized no importance in other educational movements. That State is in danger in which only a few men are educated, and they to the height of refinement. The State must have an education for ALL, such as the interests of the parents demand. Therefore, I rejoice to be here to-day, and see this building.

I rejoice, too, in its expense, in its decorations and furnishings. They show how much interest is felt in education in New Haven. What we pay highly for we value. Another thing pleasant to me to-day, is the recognition I find here between science and religion, as shown in the opening of these exercises with prayer.

Again: I feel pleasure in the name of this school building. It was fitting that the prosperous merchant, the first Governor of this colony, should be thus commemorated. It is too, a pleasant thing, in looking back, to find that four years after the founding of this colony, in 1642, under Theophilus Eaton, a free school was founded, and that in 1648 it was voted to establish a collegiate school. This latter movement was not effected until more than fifty years after. But soon after, through the instrumentality of Gov. Hopkins, Gov. Eaton's son-in-law, an institution was here established, which still exists, which is older than the College, older of course than our United States government, and older than most of the present European governments: I refer to the Hopkins Grammar School."

ASTOR LIBRARY, IN NEW YORK.

From the Seventh Annual Report of the Trustees, signed by Washington Irving, Samuel B. Ruggles, and others, it appears that to the date of the Report (Dec. 31, 1855,) the whole amount expended, from the beginning, for books and binding, has been $120,331. The number of volumes is about ninety thousand. The total cost of the present library building, including the site, and also the equipment in shelving, &c., has been $120,352. The productive fund invested in bonds and mortgages is $201,500.

The difficulty which the Trustees were apprehending from the rapid exhaustion of space devoted to books, (13,000 feet,) was occasioned by their success in making the necessary purchases at very reasonable prices, and, in fact, on much better terms than they can expect hereafter. It has thus enabled them nearly to fill the shelves of the library edifice, within the first two years after its completion, and to reach the limits of its capacity, much sooner than they had anticipated. The dimensions of the building, sixty-five feet in width on Lafayette Place, had been particularly prescribed by Mr. John Jacob Astor, the founder of the Library, and left them no discretion in that respect.

Under these circumstances, the Trustees have peculiar gratification, in being able to state to the Legislature, that the embarrassment they were beginning to feel for the too rapid increase of their literary wealth, has been removed by a signal act of liberality and forecast by Mr. William B. Astor. At the meeting of the Board on the 31st of October last, that gentleman laid before it three deeds of conveyance, duly authenticated and recorded, to the Trustees of the Library in their corporate capacity, of three parcels of land lying on Lafayette Place, immediately adjacent to the present building on its northerly side, embracing, in the aggregate, an area of eighty feet wide, in front and rear, and one hundred and twenty feet deep on each side, and which lands Mr. Astor had purchased from their proprietors, for the sum of $30,476.

Besides making this timely and generous donation, Mr. William B. Astor has announced his intention of donating books from time to time. Thus the munificent example of the father is followed by the son.

LIBRARY FOR FACTORY OPERATIVES IN LAWRENCE, MASS.

The following extract from a letter received by the Editor explains a very interesting movement for the intellectual improvement of the operatives in the Pacific Mills, in Lawrence, Mass.

"We have not forgotten your visit here for a day and a night, two years since. From your suggestion arose the plan adopted for requiring the deduction of one cent each week from the wages of every person employed here. This penny a week, gives access to the library, which consists of 1600 on 1800 vols.—commenced with an appropriation from the directors of the corporation of $1,000, and the donation of an individual friend of some 100 or 200 vols.—on three days of each week, at the noon intermission of labor, and one or two hours extra at the close of labor on Saturday, P. M. With a portion of this income, now amounting to about $750 annually, the current expenses of the library are paid for covering, re-binding books, &c.,—the corporation having thus far provided a room and the librarian,—and such additions to the collection as are thought best, amounting to perhaps $300 each year, which, in time, will give us a large and valuable library.

The remainder of the income is expended in providing lectures and musical entertainments, with now and then an exhibition of some good panorama. This year the management of the whole has been in the hands of a committee appointed by the Pacific Mills Library Association, which is composed of all the operatives. Their selection of lecturers has met with very general approbation, and the course has been considered superior to the one sustained by the citizens generally. Five hundred persons, and sometimes more, attend weekly.

The entertainments are the most attractive, naturally, drawing together in some instances, one thousand of our people.

My impressions are favorable to the plan adopted to sustain our library and lectures, and I am fully of the opinion that the influence is good, and that we secure a better class of operatives. Every stranger that visits us to lecture seems greatly pleased with the system and the character of the audience." W. C. C.

In the practical working of the Pacific Mills Library Association, the following objects are secured.

1. A valuable library from the start—something which represents both money, and sources of instruction and pleasure—and that placed in a room, easy of access, well lighted, and warmed; besides access to occasional lectures, concerts, and panoramas. Here is a *quid pro quo*—an equivalent for the deduction made on the wages of each week.

2. A plan of membership and management which includes every person connected with the establishment, either as capitalist or laborer—thus extinguishing all suspicion of exclusiveness or assumed patronage.

3. A mode of support, which, while it taxes all, does it to an extent so trifling that no one is deprived of any physical comfort, and yet so large in the aggregate as to yield an income equal to many associations whose annual fees are at least fourfold as great.

We believe a plan of this kind modified according to circumstances, is better than a Free Library, or Free Lectures—as we will take occasion to show hereafter.

We insert in this place, two Tables referred to on page 445, and which should have been printed in Article III.

TABLE IX.—DEAF AND DUMB, BLIND, INSANE AND IDIOTIC PERSONS IN 1850.

STATES AND TERRITORIES.	DEAF AND DUMB.							BLIND.							INSANE.							IDIOTIC.						
	White.		Fr. c.		Slaves.		Agg'e	White.		F. col'd		Slaves.		Agg'e.	White.		F. col'd.		Slaves.		Agg'te	Whites.		F col'd.		Slaves.		Agg'te.
	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	
Maine	140	89	1	—	—	—	230	115	86	—	—	—	—	201	279	254	3	—	—	—	536	330	225	3	—	—	—	558
New Hampshire	87	76	—	—	—	—	163	69	65	1	1	—	—	136	188	197	—	—	—	—	285	208	140	4	—	—	—	352
Vermont	75	68	—	1	—	—	144	89	49	—	—	—	—	138	276	276	—	—	—	—	552	171	109	1	—	—	—	211
Massachusetts	204	156	1	3	—	—	364	270	220	4	3	—	—	497	781	848	10	8	—	—	1,647	465	320	4	2	—	—	798
Rhode Island	34	27	2	1	—	—	64	39	22	1	2	—	—	64	121	127	3	1	—	—	252	65	39	1	2	—	—	107
Connecticut	211	174	2	2	—	—	389	110	67	12	3	—	—	192	218	231	9	4	—	—	462	182	114	8	1	—	—	300
New York	682	615	5	5	—	—	1,307	738	483	29	22	—	—	1,272	1,198	1,346	18	18	—	—	2,580	1,032	689	8	10	—	—	1,739
New Jersey	111	81	7	4	—	—	203	114	72	10	17	—	—	213	197	178	3	8	—	—	386	242	168	0	7	—	—	426
Pennsylvania	521	465	14	4	—	—	1,004	443	355	20	11	—	—	829	924	918	16	33	—	—	1,891	799	587	34	28	—	—	1,448
Delaware	28	26	1	1	—	2	58	10	17	7	12	—	—	46	29	28	6	7	—	—	70	38	40	7	12	3	1	101
Maryland	103	92	19	17	15	8	254	96	97	30	41	22	21	307	226	251	23	29	9	15	553	147	121	32	21	41	31	393
District of Columbia	7	9	—	2	1	—	19	7	7	5	3	—	1	23	10	3	4	4	1	—	23	3	4	3	1	—	—	11
Virginia	325	256	10	8	67	45	711	261	275	56	65	137	202	996	505	417	19	27	22	36	1,026	560	385	64	56	125	95	1,285
North Carolina	198	153	1	3	29	23	407	182	205	13	15	57	60	532	220	242	4	1	9	15	495	338	266	12	20	74	64	774
South Carolina	74	55	—	1	11	4	145	91	61	6	8	31	25	222	108	84	1	2	3	6	204	139	10[illegible]	1	2	26	24	295
Georgia	116	95	—	—	20	21	252	128	96	1	4	38	42	309	157	124	1	1	7	16	306	264	212	—	3	59	89	577
Florida	8	4	—	—	6	4	22	10	2	—	2	8	4	26	4	2	—	—	1	1	8	23	6	1	—	4	3	37
Alabama	96	61	1	—	28	25	211	82	82	1	2	73	68	308	106	102	1	1	18	17	245	219	144	—	—	80	62	505
Mississippi	52	29	—	1	13	13	108	75	55	—	1	35	51	217	71	56	—	—	12	10	149	88	53	1	4	36	28	210
Louisiana	58	31	3	2	22	12	128	36	31	15	10	60	66	218	83	67	6	9	14	29	208	67	37	5	8	28	28	173
Texas	33	16	—	—	6	3	58	36	23	2	1	12	2	76	24	15	—	1	1	—	41	58	39	1	—	7	3	108
Arkansas	46	37	—	—	4	2	89	45	30	—	1	3	2	81	38	22	—	—	2	1	63	51	40	2	—	7	2	102
Tennessee	195	140	—	2	16	24	377	199	186	4	6	29	44	468	258	195	1	3	8	13	478	439	350	2	2	86	25	854
Kentucky	253	232	1	3	28	22	539	249	172	8	11	46	44	530	271	217	1	2	8	8	507	428	321	13	7	48	32	849
Ohio	503	436	6	2	—	—	947	370	283	7	5	—	—	665	695	640	11	6	—	—	1,352	769	611	10	9	—	—	1,399
Michigan	62	59	—	1	—	—	122	72	50	—	—	—	—	122	71	64	1	—	—	—	136	113	74	3	—	—	—	190
Indiana	301	213	4	—	—	—	518	189	151	4	5	—	—	349	300	269	2	8	—	—	579	520	386	7	6	—	—	919
Illinois	283	190	—	2	—	—	475	156	97	1	3	—	—	257	137	109	—	3	—	—	249	213	155	2	1	—	—	371
Missouri	128	116	—	—	10	5	259	104	76	2	1	11	17	211	140	131	1	1	2	7	282	186	118	—	—	11	18	333
Iowa	27	24	—	—	—	—	51	28	19	—	—	—	—	47	19	21	—	—	—	—	41	45	48	—	—	—	—	93
Wisconsin	42	23	—	—	—	—	65	34	16	—	—	—	—	50	27	21	—	—	—	—	48	45	31	0	—	—	—	77
California	5	1	—	—	—	—	6	—	—	—	—	—	—	—	2	—	—	—	—	—	8	2	1	—	—	—	—	3
Minnesota	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	1
Oregon	—	—	—	—	—	—	—	—	—	—	—	—	—	—	4	—	—	—	—	—	4	4	—	—	—	—	—	4
Utah	—	—	—	—	—	—	—	2	—	—	—	—	—	2	2	1	—	—	—	—	3	1	1	—	—	—	—	2
New Mexico	19	9	—	—	—	—	28	70	28	—	—	—	—	98	8	3	—	—	—	—	11	22	16	—	—	—	—	38
Aggregate	5.027	4,058	78	65	276	213	9,717	4,519	3,478	239	2[illegible]	[illegible]2	649	9,702	7,697	7.459	144	177	117	174	15,768	8,276	5,954	234	202	585	455	15,706

TABLE X.—NEWSPAPERS AND PERIODICALS PUBLISHED IN THE UNITED STATES, 1850.

STATES, ETC.	Number, Daily.	Number, Tri-week.	Number, Se.-week.	Number, Weekly.	Number, Semi-mo.	Number, Monthly.	Number, Quarterly.	Literary and Miscellaneous.		Neutral and Independent.		Political.		Religious.		Scientific.		Aggregate.		
								No.	Circulation.	No.	Circula'n.	No.	Circulation.	No.	Circulation.	No.	Circula'n.	No.	Circulation.	No. of copies printed ann.
Maine..........	4	5	—	39	—	1	—	15	20,458	—	—	29	29,695	4	8,434	1	5,300	49	63,887	4.203.064
New Hampshire.	—	—	—	35	1	2	—	10	11,790	—	—	22	32,186	5	15.500	1	700	38	60,176	3,067,552
Vermont........	2	—	1	30	—	2	—	5	5,550	—	—	27	33,990	3	6,416	—	—	35	45,956	2,567,662
Massachusetts...	22	4	11	126	3	29	7	80	283,027	9	50,700	82	171,387	21	117,650	14	94,205	209	716,969	64,820,564
Rhode Island ...	5	—	2	12	—	—	—	6	5,400	1	2,500	12	18,075	—	—	—	—	19	25,975	2,756.950
Connecticut.....	7	4	—	30	—	1	2	12	11.200	—	—	28	34,916	4	5,400	1	1,200	46	53,116	4.267,932
New York......	51	8	13	308	9	36	3	101	528,908	15	127,370	263	399,755	37	507,246	12	59,500	428	1,622,779	115,385,473
New Jersey.....	6	—	—	43	2	—	—	6	4,010	1	300	44	40,144	—	—	—	—	51	44,454	4,098,678
Pennsylvania...	24	2	1	261	19	—	2	71	445,364	12	70,396	198	267.940	28	198,018	1	1.500	310	983.218	84,898,672
Delaware.......	—	—	3	7	—	—	—	2	900	—	—	8	6,600	—	—	—	—	10	7.500	421,200
Maryland.......	6	4	—	54	1	3	—	20	71,000	—	700	39	81,637	6	13,950	2	7,000	68	124,287	19.612,724
Dist. of Columbia	5	5	—	8	—	—	—	2	1,575	1	350	15	99,437	—	—	—	—	18	101,362	11,127,236
Virginia.........	15	12	—	55	3	1	1	10	5,690	1	4,200	62	51,988	9	25.256	1	2,000	87	89,134	9,223,068
North Carolina..	—	5	—	40	6	—	—	8	5,675	5	875	35	24,564	6	5.725	—	—	51	36,839	2,020,564
South Carolina..	7	5	—	27	5	—	2	10	12,700	2	8,300	24	28,115	5	4,600	2	2,000	46	55,715	7,145,930
Georgia	5	3	—	37	6	—	—	18	29,638	5	3,046	20	20,900	3	4,600	4	9,300	51	67,484	4,070,866
Florida..........	—	1	—	9	—	—	—	—	—	6	—	7	3,500	3	2,250	—	—	10	5,750	319,800
Alabama	6	5	—	48	1	—	—	11	5.100	—	1,000	45	21,336	2	3,450	1	711	60	34.597	2.662,741
Mississippi.......	—	4	—	46	—	—	—	10	4,490	1	—	40	26,380	—	—	—	—	50	30,870	1,752,504
Louisiana	11	6	—	37	—	1	—	13	22,025	6	12,000	34	45.522	1	1,000	1	300	55	80,847	12.416,224
Texas	—	5	—	29	—	—	—	17	6,737	1	1,400	14	8,350	2	2.550	—	—	34	19,137	1,296,924
Arkansas	—	—	—	9	—	—	—	3	3,300	—	—	6	3,950	—	—	—	—	9	7,250	377,000
Tennessee	8	2	—	36	—	4	—	5	10,350	2	1,610	36	33,147	7	22,770	—	—	50	67,877	6 910,750
Kentucky	9	7	—	38	8	—	—	12	14,900	2	800	42	55,936	5	12,525	1	525	62	84,686	6 582.838
Missouri.........	5	4	—	45	—	7	—	17	19,400	—	—	42	48,340	2	2,740	—	—	61	70.480	6.195.560
Illinois	8	4	—	84	3	7	1	22	17,725	1	1,290	73	51,111	8	12,097	3	6.400	107	88,623	5,102,276
Indiana	9	2	—	95	1	—	—	21	12.452	—	—	84	47,900	2	3,000	—	—	107	63 352	4,316,828
Ohio	26	10	—	201	23	—	1	37	111,790	6	13,485	192	189,304	21	90,130	5	10,400	261	415,109	30,473.407
Michigan........	3	2	—	47	3	3	—	13	13,625	1	200	39	28,793	3	5,600	2	4.500	58	52,718	3,247,736
Wisconsin	6	4	—	35	—	1	—	3	2,500	—	—	42	29,236	—	—	1	1 500	46	33,236	2,665.487
Iowa	—	2	—	25	—	2	—	2	1,000	1	1,200	25	20,150	1	650	—	—	29	23,000	1,512,800
California	4	—	—	3	—	—	—	3	2,600	4	2,000	—	—	—	—	—	—	7	4,600	761,200
Minnesota Ter'ry	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
New Mexico "	—	—	—	1	1	—	—	2	900	—	—	—	—	—	—	—	—	2	900	38,800
Oregon "	—	—	—	2	—	—	—	1	624	—	—	1	510	—	—	—	—	2	1,134	58,968
Utah "	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Total.........	254	115	31	1,902	95	100	19	568	1,692,403	83	303,722	1,630	1,907,794	191	1,071,657	53	207,041	2,526	5,183,017	426,409,978

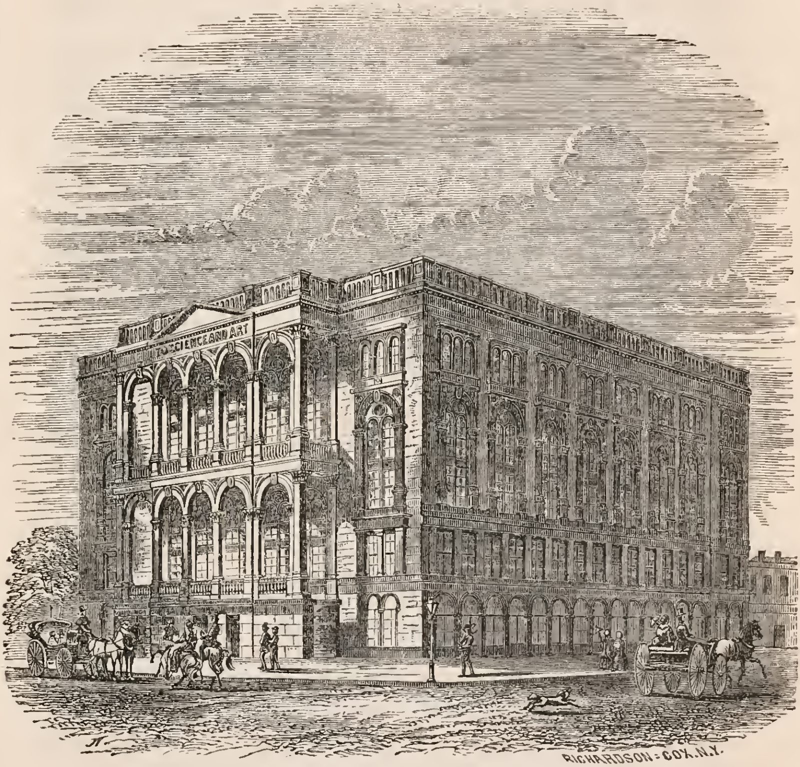
COOPER SCIENTIFIC UNION IN NEW YORK.

The large structure which Peter Cooper, Esq., is erecting at the head of the Bowery, in New York, in the immediate vicinity of the Astor and Mercantile Libraries, is so far advanced towards completion, that the munificent projector applied to the Legislature at its last session for an Act incorporating thirteen Trustees named by him, to receive the estate and apply its revenues " to the advancement of science, art, philosophy and letters ;"—in other words, to the purposes of a great National University, for there is no limitation as to the kind or extent of instruction to be provided by the Trustees, or to the section of country from which students may attend. The Bill reported by a Committee of the Senate, and passed unanimously by that body, exempts the property, [which will cost, when the building is finished, and including the present value of the lot, near $600,000,] from taxation, and empowers the Trustees to receive and expend the revenues derived from the rent of any portion of the premises, and from any bequests or property of which they may become possessed, and to confer degrees " for proficiency in science, art, philosophy, and letters." The Board is subject to the visitation of the Supreme Court of the State, and must report annually to the Common Council of the City, to the Legislature of the State, and the Regents of the University as to the revenues, expenditures, and condition, generally, of the Institution. The Bill, as passed by the Senate, changes the name of the Institution from the UNION, which is engraved in large letters on the front of the building, to *The Cooper Scientific Union*, against the earnestly expressed wishes of the founder. The Bill was not reached in time to be acted on by the House of Representatives.

Of this munificent consecration of so large a property to scientific and educational purposes, during the lifetime of the donor, Dr. Lieber, of South Carolina College, in a note to his lecture before the Columbia Athenæum, remarks :

> " While these pages were passing through the press, the author received the act by which the Legislature of New York has incorporated the institution founded by Peter Cooper, Esq., merchant and manufacturer in the city of New York, for the promotion of the arts, sciences, literature and general knowledge among both sexes, and in the different classes of society. It is near its completion, and when finished will have received from its founder values to the amount of half a million of dollars. These he gives with his living palm, not with the stiffened hand of bequest. To call such a gift princely or even imperial liberality, were simply using a sinking figure of speech. Princes never bestow such gifts of that which is their own. May we not call it American republican munificence? No Adrian disburses this sum from the treasury, filled with the tribute of aching provinces; no Napoleon lavishes it from the collection of severe taxes; no Guy bequeaths it to soothe the smarting memory of disreputable traffic; no testator distributes what he could not take with him ; but a simple citizen and kindly lover of his species, gives what he has earned by active and by honest trade, in the full vigor of a life that has always been garnished with deeds of charity and public spirit. An act like this is an event, and belongs to history; otherwise it might be indelicate to state that the mentioned sum is not the tithe, but the third or fourth part of the wealth which the generous donor's own industry has accumulated with the blessing of Providence. Nor are to him the words Wife and Children mere terms without the thrilling directness of reality. His public largess does not come from private loneliness ; and it required the sovereign power of the Legislature to force the name of Cooper on the Union, that is, the Union of Arts, Sciences, and General Knowledge."

Mr. Cooper has not made known the specific plan upon which he designs his trust to be administered.



The Cooper Scientific Union, New York.

XVIII. OBITUARY.

T. Romeyn Beck, M. D., LL. D., died at Albany, on the 26th of December, 1855, aged 65.

Dr. Beck, was born in Schenectady, N. Y., August 11th, 1791, entered Union College in 1803, and graduated there at the age of sixteen, when he immediately began the study of Medicine. In 1817, he withdrew from the practice of medicine and accepted the post of Principal of the Albany Academy, which he continued to hold till 1848, and during the more than thirty years of his administration the Academy sustained a reputation second to no similar institution in the state. In 1826, he was made Professor of Medical Jurisprudence at Fairfield Medical College, where he had been lecturer on the same subject, and Professor of the Institutes of Medicine since 1815. He continued to occupy these chairs until the abandonment of the college, in 1840. In 1841, Dr. Beck was appointed to the office of Secretary of the Board of Regents of the University of the State of New York, a position of great honor and trust, which he continued to occupy till his death.

The Regents have a supervisory charge of the educational interests of the State, and are required to make an annual report of the condition of all the colleges and academies under their care. His reports during the period of his incumbency are not only voluminous, but also equally models of accuracy and compactness. But the supervision of colleges and academies does not, by any means, limit the powers and responsibilities of the Regents. To them is intrusted the care of the State Library, of the State Cabinet of Natural History, and also the management of much of the foreign correspondence, and all the literary or scientific international exchanges. Most of these various duties devolved officially upon Dr. Beck. To his earnest devotion thereto, and eminent qualifications, the State is indebted for its large and judiciously selected Library, and especially for its unrivaled collection of works on American History.

He was one of the originators of the plan for the Geological Survey of the State, became one of its most ardent supporters, and under successive governors was intrusted with much of the supervision of the work ; and, in short, for forty years there was scarce any leading measure for the promotion of education or of medical and general science, in which he did not take an active part, and become as it were, identified.

Dr. Beck's " Elements of Medical Jurisprudence," in two volumes, octavo, was first published in 1823, and has already passed through five American, four London, and one German, editions. To him is certainly due the high credit, not merely of rousing public attention to an important and neglected subject, but also of presenting a work upon it, which will, probably, never be entirely superseded.

Professor Ladoc Thompson, of the University of Vermont, died in Burlington, Vt., January 19th, in his 60th year.

He was born in Bridgewater, Vt, in 1796, and at an early day showed that strong propensity for observing facts in Natural Science, and for mathematical applications which after he had arrived to manhood became his distinguishing characteristic. He graduated at the University of Vermont, in 1823, was ordained Deacon in the Protestant Episcopal Church in 1836, but his ministrations as a preacher were only occasional, owing to the instability of his health.

At different times he occupied himself as an instructor of youth but his chief employment was that of independent investigation and the labors of authorship. His writings are prehaps more familiar to the people of Vermont, than those of any other man. To say nothing of his smaller useful works intended for schools, and his preparation of the astronomical part of the calender so familiar to thousands for more than thirty years, his History and Gazetteer of the State is specially noticeable. The Gazetteer was published as early as 1824, and continued to accumulate facts pertaining to that subject. In 1842, he published his large work on the Natural History of the State, on its civil and political history, and that of its various institutions, followed by an enlarged and improved edition of the Gazetteer. A valuable appendix was issued in 1853.

In 1853 he was appointed State Naturalist, and began to institute a survey embracing the Physical Geography, Geology, Mineralogy, Botany, and Zoology of the State. His work was already far advanced and would have been of great value to the State and to Science. As it is, we hope it will not be lost to the public.

JOSEPH CURTIS, a native of Newtown, Conn., and a distinguished and venerable friend of Public Education, died on Saturday, April 12th, 1856, in his 74th year.

Mr. Curtis removed at the age of 16 to New York, where he continued to reside till his death. He was an active member of the "Manumission Society in 1817, and for his efforts in securing the Gradual Emancipation Act received two massive silver pitchers as a token of their appreciation. He was active in the establishment of the Society for the prevention of vagrancy, and the leading spirit in developing the New York House of Refuge. In 1820 he established at Flatbush, L. I., the first Sunday School ever instituted for free blacks. Mr. Curtis was one of the founders, and a Trustee of the Public School Society for 33 years, and when in 1853, the old Public School Society was merged in the present system, he was one of the fifteen commissioners chosen to represent that Society in the Board of Education, and in that capacity secured universal respect and affectionate regard.

JOSEPH MCKEEN, LL. D., died on the 12th of April, 1856; was born in Antrim, Vt., and was, at the time of his death, in his 65 year. He removed to New York about the year 1818, and engaged in teaching, at first in a private, and aftewards for a long time in public school, No. 5, situated in Mott Street. In 1848, he was selected to fill the honorable and responsible post of Superintendent of city schools, the duties of which he performed with marked ability. In 1854 the duties of the office were divided, and Mr. S. S. Randall, was made City Superintendent, and Mr. Mc Keen, and Mr. Seton' elected his assistants. But he spent no less time than before in the schools, and labored no less arduously for their good than before. He was busily engaged in the semi-annual examinations, when he was taken down with his last illness. For his labors as an unflinching advocate, at once judicious and able, of common schools for a quarter of a century, he has exercised an influence which has made his name well known and honored throughout the country.

NICHOLAS TILLINGHAST, the first Principal of the State Normal School at Bridgewater, Mass., died in that town on the 10th of April, 1856. He was educated at West Point, and brought to his post as a teacher of teachers, a moral and mental discipline in himself—a sense of duty in every position, which left its impress on every graduate of that school. We shall have occasion to speak of his educational labors more at length hereafter, in connection with a history of the Bridgewater Normal School.

RORERT KELLY, one of the early and most efficient promoters of the Free Academy of the City of New York, died on the 28th of April, 1856, in the 47th year of his age. He graduated at Columbia College with distinguished honor, and although he soon afterwards engaged in mercantile pursuits, he continued to be a diligent student, and when he retired from business in 1836, he had mastered eight different languages. He was the second President of the Board of Education for New York City, and one of the Regents of the State University, and President of the Trustees of the House of Refuge. It was in discharging his duties in the office last named, that he took cold, which ended in his sudden and much deplored death.

XVIII. EDUCATIONAL PERIODICALS.

We can do nothing more than give the titles of the Educational Journals which have been received since the issue of the March number.

American Annals of the Deaf and Dumb; edited by Samuel Porter. Hartford. Vol. VIII. April, 1856. 64 pages quarterly.

The American Journal of Education, and College Review. Absalom Peters, D. D., and Hon. S. S. Randall. Vol. 1, No. 4. April, 1856. 96 pages, monthly.

The Connecticut Common School Journal. Vol. XI. April, 1856. 32 pages. Hon. John D. Philbrick, Resident Editor.

The Illinois Teacher; Organ of the State Teachers' Institute. April, 1856. E. E. Hovey, Editor, Peoria. 32 pages, monthly. $1,00.

The Indiana School Journal. March, 1856. 32 pages, monthly. Geo. P. Stone, Editor, Indianapolis.

Journal of Education; Upper Canada, Toronto. Vol. IX. April, 1856. Mr. J. George Hodgins, Toronto. 16 pages.

The Massachusetts Teacher and Journal of Home and School Education. Vol. IX. No. 4. April, 1856. 48 pages. Prof. A. Crosby, Resident Editor, Boston. $1,00.

The Michigan Journal of Education, and Teachers' Magazine. Vol. III, No. 4. April, 1856. 32 pages. John M. Gregory, Editor, Detroit. $1,00.

New York Teacher. Alexander Wilder, Resident Editor, Albany. Vol. V, No. 7, May, 1856. 48 pages.

Normal School Advocate Vol. I, No. 4. for April, 1856. Lebanon, Ohio. 12 pages, monthly. 50 cts.

The Ohio Journal of Education. Vol. V, No. 4. April, 1856. Rev. A. Smyth, Editor, Columbus. 32 pages, monthly. $1,00.

The Pennsylvania School Journal. Tho. H. Barrowes, Editor, Lancaster. April, 1856. 32 pages.

The Rhode Island Schoolmaster. Vol. II, No. 2. April, 1856. Hon. Robert Allyn, Editor, Providence. 32 pages. $1,00.

Western College Intelligencer. Issued by the Society for the promotion of Collegiate and Theological Education at the West. Rev. Theron Baldwin, Editor. New York, Feb. 1856. 8 pages, quarto.

The Wisconsin Journal of Education. Vol. I, No. 1. March, 1856. I. L. Packard, Editor, Racine. 32 pages. $1,00.

SUPPLEMENTARY NUMBER.

The Publisher of the American Journal of Education will send to the Subscribers, without charge, a Supplementary Number *to Volume* I. Containing

The Title page, Contents, and Index; an Account of the Editor's labors in Connecticut and Rhode Island; a Catalogue of Educational Books for Teachers; and Publisher's Advertisements of Text Books, forwarded for insertion in this Number.

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